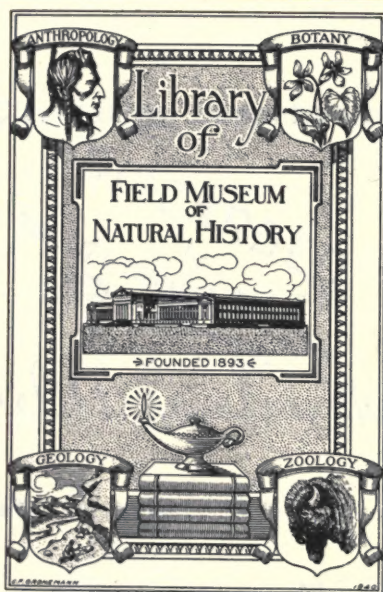
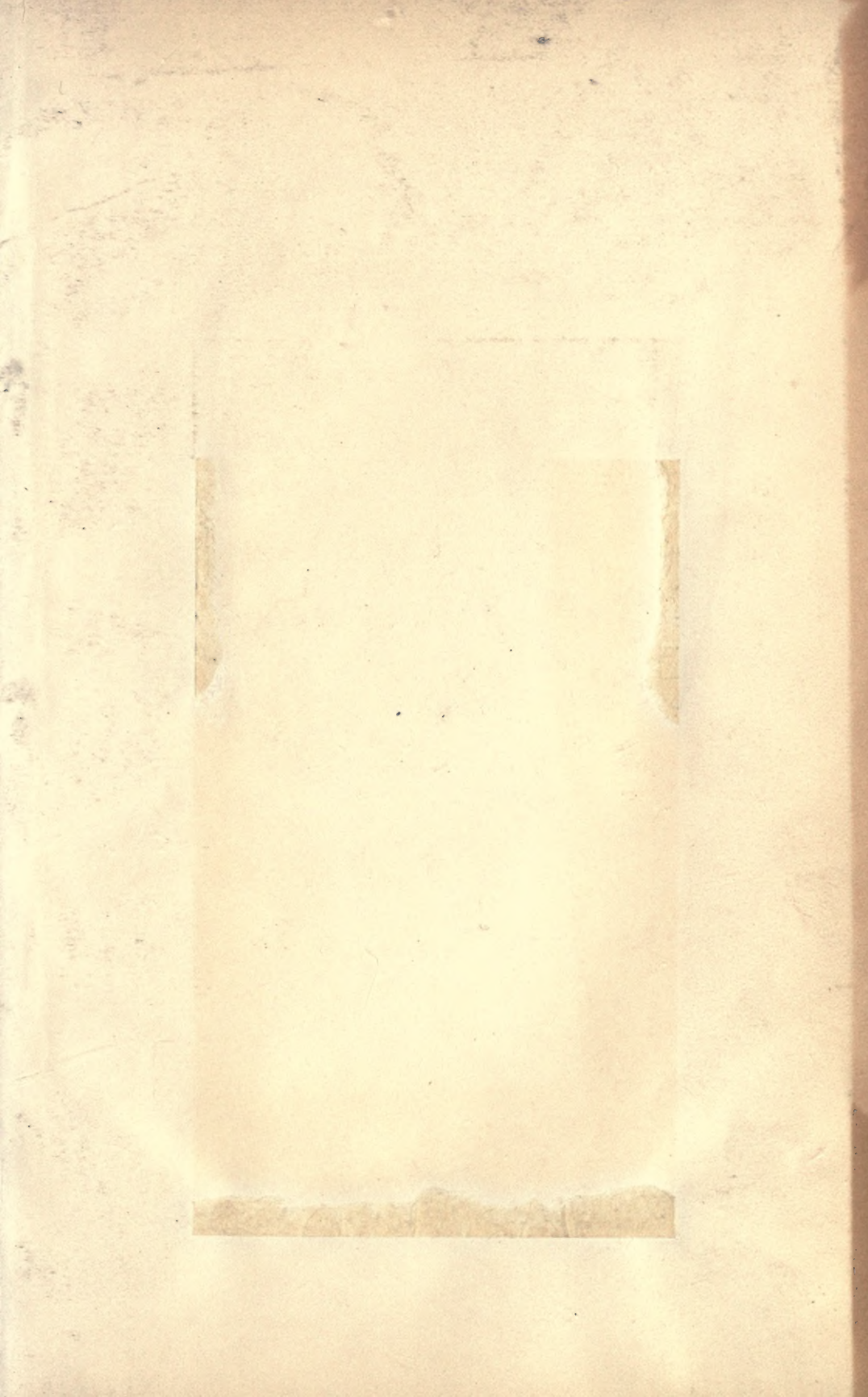




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FIELD COLUMBIAN MUSEUM

PUBLICATION 105

ZOOLOGICAL SERIES

VOL. VI

A

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OF

MAMMALS

OF THE

NORTH AMERICAN CONTINENT

THE

WEST INDIES

AND THE

NEIGHBORING SEAS

BY

DANIEL GIRAUD ELLIOT, F. R. S. E., ETC.

Curator of Department.



CHICAGO, U. S. A.

1905

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PREFACE.

The present volume is supposed to include all the species and races of Mammals (that have been described up to the date of publication) which inhabit the North American Continent from the Arctic Ocean to the Province of Cauca in Colombia, South America, together with those of the West India Islands, and the adjoining seas. These are arranged systematically according to the author's views, and descriptions have been given of those forms that have received names since the two previous works (the Synopsis of North American Mammals, and the Land and Sea Mammals of Middle America and the West Indies) were published.

In the works above named, in order that their bulk should not be unduly increased, generic names were omitted from the synonymy of the species and races. These have been supplied in the present volume, thus making all references complete, and increasing their usefulness for those who may have occasion to consult them. Mammalian nomenclature being still in a transitory condition, names that have perhaps become familiar to many have been obliged, in certain cases, to give place to others less known on account of either the same name having been previously employed in other branches of Zoölogy, or having been antedated by a different one. Changes, therefore, are continually occurring, as this volume will testify, and new names in various instances have taken the place of those employed even so recently as in the lately published volumes on the Mammals of Middle America and the West Indies. This Check List consequently should always be consulted for the latest accepted name, from that of the Family down to the subspecies.

The present volume does not profess to be more than its title implies, a CHECK LIST of all known North American Mammals, without descriptions, save of those named forms not included in previous volumes, but with a moderate amount of synonymy added, and the type locality and geographical distribution in every instance given, if known. For all other information regarding the Orders, Families, Genera, species, and races, the author's other published works on the same subject should be consulted. The Check List is merely the natural sequence of the three previous volumes, and concludes the whole work as originally conceived.

Great care has been taken to correct all errors, typographical, as well as those of other kinds, which have been observed, and although the author is well aware that a complete elimination of these is practically impossible in works of this description, yet it is hoped that in this volume errors and omissions have been reduced to a minimum.

The number of species enumerated in the present list is 1,308, + No. 936a = 1,309, and 676 races of species found within the geographical limits embraced in the work; added to which are 22 races of exotic species, originating in South America. These all make a grand total of 2,007 species and races with a recognized standing at the present time, inhabiting the North American Continent, with its islands and seas. Many groups of these have never been critically examined, or the specific or racial value of their members clearly determined, and when this is done, doubtless the total number will be considerably reduced and the synonymy correspondingly increased. The *Furor specificus* has probably reached its zenith, and the Sober Second Thought, it is hoped, may soon institute its benign sway.

The Index is intended to answer in a certain degree for the two previous works on the Mammals of the North American Continent, with its islands and seas, as well as for the present volume, and the number of the page given under its respective head, when indicated by heavy type, is that on which the genus, species, or race is described. As probably new names will be bestowed on specimens from time to time, it is proposed to issue at stated intervals, as may be deemed expedient, a list of these forms with descriptions, and such information concerning them as is given of those contained in the volumes already published, and any additional knowledge of the older and longer known forms that may have been gained will be also included, thus keeping the entire work regularly up to date.

My thanks are due to the Assistant Curators of the Department of Zoölogy in this institution, Dr. S. E. Meek and Mr. W. J. Gerhard, for much valuable aid in reading the proofs and constructing the Index; and also to my Assistant, Mr. E. B. Choate.

D. G. E.

1st July, 1905.

ERRATA.

- Page 25, 19th line from bottom, for *Delphinus phocæna*, read *Delphinus phocæna*.
- Page 32, 14th line from bottom, for *Delphinapteris borealis*, read *Delphinapterus borealis*.
- Page 33, 14th line from top, for 1904, read 1901.
- Page 64, 3d line from top, for *Sciurus collæi*, read *Sciurus colliæi*.
- Page 76, top line, for *Sciurus adolphei dorsalis*, read *Sciurus adolphii dorsalis*.
- Page 123, 4th line from bottom, for Suppl., read Append.
- Page 125, 25th line from top, for Suppl., read Append.
- Page 319, 5th line from bottom, for *Heteromys phæurus*, read *Heteromys phæura*.
- Page 420, 22d line from top, for *Mustela americana brumalis*, read *Mustela atrata brumalis*; and 12th line from bottom, insert *Mustela atrata actiosa* before Elliot, Syn. N. Am. Mamm. etc., and begin separate paragraph.
- Page 473, 12th line from top, for Italy, read Ital.
- Page 495, 8th line from bottom, for Mag. Zoöl. Bot., read Mag. Zoöl. & Bot.

CLASS MAMMALIA.

Order I. **Marsupialia. Marsupials.**

Family I. **Didelphyidæ. Opossums.**

Genus 1. **Chironectes.**

Chironectes Illig., Prodr. Syst. Mamm. et Av., 1811, p. 76. Type

Lutra minima Zimmermann.

Memina G. Fisch., Zoogn., III, 1814, p. 611.

1. **Chironectes minimus** (Zimmermann).

Lutra minima Zimm., Geog. Gesch., II, 1780, p. 317.

Mustela paraguensis Kerr, Linn. Anim. Kingd., 1792, p. 172.

Mustela guianensis Kerr, Linn. Anim. Kingd., 1792, p. 174.

Didelphis memina Cuv., Tabl. Élément., 1798, p. 125.

Lutra sarcovienna Shaw, Gen. Zoöl., I, Pt. II, 1809, p. 447.

Chironectes variegatus Illig., Abh. Ak. Wiss. Berl., 1811, p. 107.

Chironectes palmata Cuv., Règn. Anim., I, 1817, p. 174.

Chironectes yapock Desm., Mamm., I, 1820, p. 261.

Chironectes minimus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 3, figs. 1, 1. Zoöl. Ser.

WATER OPOSSUM, YAPOCK. Zarro de Agua in Costa Rica; Tlacuazin de Agua in Guatemala.

Type locality. Guiana.

Geogr. Distr. Guatemala, south through Central America to southern Brazil.

Genus 2. **Marmosa.**

Marmosa Gray, Lond. Med. Repos., xv, 1821, p. 308. Type *Didelphis murina* Linnæus.

Micoureus Less., Tabl. Règn. Anim., Mamm., 1842, p. 186.

Asagis and *Notagopus* Glog., Hand- u. Hilfsb. Naturg., I, 1841, p. 82.

Thylamys (sic) Gray, List. Mamm. Brit. Mus., 1843, p. 101.
Grymaomys Burm., Syst. Uebers. Thiere Bras., I, 1854, p. 135.
Cuica Liais, Climats, Géol., Faun., Géog., et Botan. Brésil, 1872,
 p. 427.

2. *Marmosa murina* (Linnæus).

Didelphis! murina Linn., Syst. Nat., I, 1758, p. 55.
Didelphis! dorsigera Linn., Syst. Nat., I, 1758, p. 55.
Didelphys cayopollin Schreb., Säugth., III, 1778, p. 544, pl. CXLVIII.
Didelphys macrotarsus Wagn., Archiv f. Naturg., VIII, 1842, p. 359.
 (nec Schreber.)
Didelphys microtarsus Wagn., Archiv f. Naturg., VIII, 1842, p. 359.
 (nec Schreber.)
Didelphys imparida Tschudi, Faun. Peruana, 1844, p. 149, pl. IX.
Didelphys muscivus Cap., Schomb. Brit. Guiana, III, 1848, p. 778.
Grymaomys murinus Burm., Erläut. Faun. Bras., 1856, pp. 80-81.
Grymaomys dorsiger Burm., Erläut. Faun. Bras., 1856, pp. 80-81.
Grymaomys imparida Burm., Erläut. Faun. Bras., 1856, pp. 80-81.
Didelphys murinus True, Proc. U. S. Nat. Mus., VII, 1885, p. 587.
Marmosa murina Thomas, Ann. Mag. Nat. Hist., 6th Ser., 1895,
 p. 58. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
 Pub., IV, Pt. I, 1904, p. 5. Zoöl. Ser.

MURINE OPOSSUM. *Tlacuazin Raton* in Guatemala.

Type locality. Unknown.

Geogr. Distr. Central America to Brazil.

a. *Marmosa murina mexicana* Merriam.

Marmosa murina mexicana Merr., Proc. Biol. Soc. Wash., XI,
 1897, p. 44. Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., IV, Pt. I, 1904, p. 6. Zoöl. Ser.

MEXICAN MURINE OPOSSUM.

Type locality. Juquila, State of Oaxaca, Mexico.

Geogr. Distr. States of Oaxaca and Chiapas, Mexico.

3. *Marmosa canescens* (Allen).

Didelphis! (Micoureus) canescens Allen, Bull. Am. Mus. Nat. Hist.
 N. Y., 1893, p. 235.

Marmosa canescens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897,
 p. 58. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
 Pub., IV, Pt. I, 1904, p. 6. Zoöl. Ser.

ASHY OPOSSUM.

Type locality. Santo Domingo de Guzman, Isthmus of Tehuantepec, Mexico.

Geogr. Distr. Hacienda Magdalena, State of Colima, through States of Michoacan, Guerrero, and Oaxaca, to the Isthmus of Tehuantepec.

4. *Marmosa sinaloæ* Allen.

Marmosa sinaloæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 143. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 6. Zoöl. Ser.

SINALOA OPOSSUM.

Type locality. Tatemales, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico.

5. *Marmosa cinerea* (Temminck).

Didelphis! cinerea Temm., Monog. Mamm., I, 1827, p. 46.

Didelphys cinerea True, Proc. U. S. Nat. Mus., VII, 1885, p. 587.

Marmosa cinerea Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 43. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 7, fig. II. Zoöl. Ser.

GRAY OPOSSUM.

Type locality. Brazil.

Geogr. Distr. Costa Rica to Brazil.

6. *Marmosa insularis* Merriam.

Marmosa insularis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 14.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 7. Zoöl. Ser.

MARIA MADRE ISLAND OPOSSUM.

Type locality. Maria Madre Island, State of Jalisco, Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico.

7. *Marmosa oaxacæ* Merriam.

Marmosa oaxacæ Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 43.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 8. Zoöl. Ser.

OAXACA OPOSSUM.

Type locality. City of Oaxaca, State of Oaxaca, Mexico.

Geogr. Distr. Range unknown. "Sonoran fauna of highlands of the State of Oaxaca, Mexico."

8. *Marmosa fulviventer* Bangs.

Marmosa fulviventer Bangs, Amer. Nat., XXXV, 1901, p. 632.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 8. Zoöl. Ser.

FULVOUS-BELLIED OPOSSUM.

Type locality. San Miguel Island, Bay of Panama.

Geogr. Distr. Known only from San Miguel Island.

Genus 3. **Caluromys.**

Caluromys Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1900, p. 189.
Type *Didelphis! philander* Linnæus.

9. Caluromys alstoni Allen.

Caluromys alstoni Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1900,
p. 189. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. 1, 1904, p. 9, pl. 1. Zool. Ser.

Didelphys cinereus Alston, Biol. Centr. Amer., Mamm., 1, 1880,
p. 199, pl. XXI. (nec Temm.)

ALSTON'S OPOSSUM.

Type locality. Tres Rios, Costa Rica.

Geogr. Distr. Costa Rica, Central America.

10. Caluromys derbianus (Waterhouse).

Didelphys derbianus Waterh., Jard. Nat. Libr., Mamm., XI, 1841,
p. 97.

Caluromys derbianus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 9, fig. III. Zool. Ser.

EARL OF DERBY'S OPOSSUM.

Type locality. Unknown.

Geogr. Distr. Nicaragua in Central America to Peru in South
America.

Caluromys laniger pallidus (Thomas).

Philander laniger pallidus Thomas, Ann. Mag. Nat. Hist., 7th Ser.,
IV, 1899, p. 286.

Caluromys laniger pallidus Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1900, p. 189. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 10. Zool. Ser.

PALE WOOLLY OPOSSUM.

Type locality. Bogava, Chiriqui, Panama. Altitude, about 750
feet.

Geogr. Distr. Southeastern Central America.

Genus 4. **Metachirus.**

Metachirus Burm., Syst. Uebers. Thier. Bras., 1, 1854, p. 135.
Type *Didelphys nudicaudata* E. Geoffroy.

11. Metachirus nudicaudatus (E. Geoffroy).

Didelphys nudicaudata E. Geoff., Cat. Mus. Paris, 1803, p. 42.

Didelphis! myosurus Temm., Mon. Mamm., 1, 1827, p. 38.

Metachirus nudicaudatus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1900, p. 197. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 12. Zool. Ser.

RAT-TAILED OPOSSUM.

Type locality. Cayenne, French Guiana.

Geogr. Distr. Costa Rica to Brazil.

12. *Metachirus fuscogriseus* Allen.

Metachirus fuscogriseus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1900, p. 194. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 12, figs. 3, IV. Zool. Ser.

Didelphys quica True, Proc. U. S. Nat. Mus., VII, 1885, p. 587. (nec Temm.)

ALLEN'S OPOSSUM. *Tlacuazin* in Guatemala.

Type locality. Unknown.

Geogr. Distr. Southern Mexico to Costa Rica.

a. *Metachirus fuscogriseus pallidus* Allen.

Metachirus fuscogriseus pallidus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 215. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 13. Zool. Ser.

ORIZABA OPOSSUM.

Type locality. Orizaba, State of Vera Cruz, Mexico.

Geogr. Distr. States of Vera Cruz, Puebla, and Tabasco, southeastern Mexico.

Genus 5. *Didelphys*.

Didelphis (sic) Linnæus, Syst. Nat., 1758, p. 54. Type *Didelphis! marsupialis* Linnæus.

13. *Didelphys yucatanensis* Allen.

Didelphis! yucatanensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 178.

Didelphys yucatanensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 14. Zool. Ser.

YUCATAN OPOSSUM.

Type locality. Chichen Itza, Yucatan, Mexico.

Geogr. Distr. States of Campeche and Yucatan, Mexico.

a. *Didelphys yucatanensis cozumelæ* Merriam.

Didelphis! yucatanensis cozumelæ Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 101.

Didelphys yucatanensis cozumelæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 15. Zool. Ser.

ISLAND OF COZUMEL OPOSSUM.

Type locality. Cozumel Island, Yucatan.

Geogr. Distr. Known only from the type locality.

14. *Didelphys mesamericana* Oken.

Didelphis! mesamericana Oken, Lehrb. der Zool., II, 1816, p. 1152.

Didelphis! californica Bennett, Proc. Zool. Soc., 1833, p. 40.

Didelphys californica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 3. Zool. Ser.

Didelphys mesamericana Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, p. 15, fig. 5, pl. II. Zool. Ser.

LINNEAN OPOSSUM.

Type locality. "Northwestern Mexico, adjacent to California."

Geogr. Distr. Oklahoma Territory, through Mexico generally into Guatemala.

a. *Didelphys mesamericana texensis* (Allen).

Didelphis! marsupialis texensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 172.

Didelphys marsupialis texensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 519. Zool. Ser.

Didelphis! mesamericana texensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 256.

Didelphys mesamericana texensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 16. Zool. Ser.

TEXAS OPOSSUM.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Coast region of Texas from Neuces Bay southward, and the lower Rio Grande Valley as far at least as Del Rio, Val Verde County, sporadically northward to San Antonio; Matamoros, State of Tamaulipas, Mexico.

b. *Didelphys mesamericana tabascensis* (Allen).

Didelphis! marsupialis tabascensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 173.

Didelphis! mesamericana tabascensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 257.

Didelphys mesamericana tabascensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 16. Zool. Ser.

TABASCO OPOSSUM.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. State of Vera Cruz to that of Tabasco, and across State of Chiapas, Mexico, to northern Guatemala.

15. *Didelphys virginiana* Kerr.

Didelphis! virginiana Kerr, Anim. Kingd., 1792, p. 193.

Didelphys virginiana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 1, fig. 1. Zoöl. Ser.

**Didelphis! virginiana pigra* Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 172.

Didelphys virginiana pigra Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 1. Zoöl. Ser. *Id.* Pub. Field Colum. Mus., III, 1901, p. 32. Zoöl. Ser.

VIRGINIAN OPOSSUM.

Type locality. Virginia.

Geogr. Distr. Atlantic coast of United States from New York to southern Florida, and west to Mississippi, and Texas.

***Didelphys marsupialis insularis* Allen.**

Didelphis! marsupialis insularis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 259.

Didelphys marsupialis insularis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 17. Zoöl. Ser.

ISLAND OPOSSUM.

Type locality. Caparo, Island of Trinidad.

Geogr. Distr. Islands of Dominica, Grenada & St. Vincent, West Indies. Trinidad.

***Didelphys marsupialis battyi* Thomas.**

Didelphis! marsupialis battyi Thomas, Novitat. Zool., IX, 1902, p. 137.

Didelphys marsupialis battyi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 17. Zoöl. Ser.

*I see no reason whatever to alter the opinion expressed in Pub. F. C. M., III, 1901, p. 32, Zoöl. Ser., that *D. v. pigra* Bangs is not entitled to even a subspecific rank, but should be considered a synonym of *D. virginiana*. That the latter species would assume a black pelage in certain parts of its dispersion, just as *D. marsupialis* Linn. does, is to be expected, and color in this animal and its near allies cannot be deemed alone to possess specific value. Dr. Allen in his review of *Didelphys* (Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 165), can only say in favor of *pigra* that "it is not sharply or very strongly differentiated from *D. virginiana* (typica), but south Florida and Louisiana specimens are quite unlike the northern form through their much darker general coloration," and also slight differences in extent of facial markings, black on ears and tail, and white on toes and ears. It may be remarked that in a series of specimens the last differences are very slight indeed. No CHARACTERS are produced by which *pigra* can be distinguished from the species *D. virginiana*, worthy of consideration, save a "much darker general coloration" in some examples, which, if allowed, at once necessitates raising to a subspecific rank the black individuals of *D. marsupialis* Linn., found so frequently in certain parts of its dispersion, and thus far no one has had the temerity to do this. *D. v. pigra* apparently has not one qualification to entitle it to a subspecific rank, and if it has, no one has, as yet, been able to discover it.

BATTY'S OPOSSUM.

Type locality. Coiba Island, west coast of Panama.

Geogr. Distr. Known only from type locality.

Didelphys marsupialis etensis Allen.

Didelphis! karkinophaga! caucæ Bangs, Amer. Nat., xxxv, 1901, p. 633.

Didelphis! marsupialis etensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 262.

Didelphys marsupialis etensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 18. Zoöl. Ser.

ETEN OPOSSUM.

Type locality. Eten, Piura, Peru. Altitude, 50 feet.

Geogr. Distr. Low coast belt of Ecuador and Peru, bordering the Gulf of Guayaquil and probably northward near the coast of Chiriqui, Panama; San Miguel Island, Bay of Panama.

16. *Didelphys richmondi* Allen.

Didelphis! richmondi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 175.

Didelphys aurita Alston, Biol. Centr. Amer., Mamm., 1, 1881, p. 197. (nec Max.)

Didelphys richmondi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 16. Zoöl. Ser.

RICHMOND'S OPOSSUM.

Type locality. Greytown, Nicaragua.

Geogr. Distr. Nicaragua and Costa Rica, Central America.

Order II. **Edentata. Edentates.**

Family I. **Bradypodidae. Sloths.**

Genus 6. **Choloepus.**

Choloepus Illig., Prodr. Syst. Mamm. et Av., 1811, p. 108. Type
Bradypus didactylus Linnæus.

17. **Choloepus hoffmanni** Peters.

Choloepus hoffmanni Peters, Monatsb. K. Preuss. Ak. Wiss. Berlin, 1858, p. 128. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 20, figs. 4, VI. Zoöl. Ser.

HOFFMANN'S SLOTH.

Type locality. Costa Rica.

Geogr. Distr. Costa Rica, Central America.

Genus 7. **Bradypus.**

Bradypus Linn., Syst. Nat., I, 1758, p. 34. Type *Bradypus tri-*
dactylus Linnæus.

Ignavus Frisch, Nat. Syst. vierfüss. Thiere, in Tabellen, Tab. Gen., 1775.

Arctopithecus Virey, Nouv. Dist. Hist. Nat., xxxi, 1819, p. 279.
Gray, Proc. Zoöl. Soc., 1871, p. 436.

18. **Bradypus castaneiceps** (Gray).

Arctopithecus castaneiceps Gray, Proc. Zoöl. Soc., 1871, p. 444.

Bradypus castaneiceps Alston, Biol. Centr. Amer., Mamm., I, 1881, p. 184. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 22, fig. VII. Zoöl. Ser.

CHESTNUT-HEADED SLOTH. *Camaleon* in Nicaragua.

Type locality. Chontales, Nicaragua.

Geogr. Distr. Nicaragua, Central America.

19. **Bradypus infuscatus** Wagler.

Bradypus infuscatus Wagl., Isis, 1831, p. 611. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 23, fig. 5. Zoöl. Ser.

Arctopithecus griseus Gray, Proc. Zoöl. Soc., 1871, p. 446, pl. xxxvi.

DUSKY SLOTH.

Type locality. Western Brazil.

Geogr. Distr. Costa Rica, Central America, to Brazil and Bolivia.

Family II. **Myrmecophagidæ. Anteaters.**Genus 8. **Cyclopes. Two-toed Anteaters.**

Cyclopes Gray, Lond. Med. Repos., xv, 1821, p. 305. Type

Myrmecophaga didactyla Linnæus.

Didactyles F. Cuv., Dict. Scien. Nat., LIX, 1829, p. 501.

Myrmydon Wagl., Nat. Syst. Amph., 1830, p. 36.

Dionyx I. Geoff., Rés. Leçons Mamm. Mus. Paris, 1835, p. 54.

Myrmecolichnus Reich., K. Säch. Naturh. Mus. Dresden, Ein Leitfaden, 1836, p. 51.

Eurypterna Glog., Hand- u. Hilfsb. Naturg., I, 1841, pp. xxxi, 112.

Cyclothurus (*sic*) Less., Nouv. Tabl. Règn. Anim., Mamm., 1842, p. 152.

Didactyla Liais, Climats, Géol., Faun., Géog., Botanique Brésil, 1872, p. 356.

20. **Cyclopes dorsalis** (Gray).

Cyclothurus dorsalis Gray, Proc. Zoöl. Soc., 1865, p. 385, pl. 19.

Cyclopes dorsalis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 25, figs. 6, VIII. Zoöl. Ser.

LITTLE OR TWO-TOED ANTEATER.

Type locality. Costa Rica.

Geogr. Distr. Guatemala through Central America to South America.

Genus 9. **Tamandua. Three-toed Anteaters.**

Tamandua Frisch, Nat. Syst. vierfüss. Thiere, in Tabellen, 5, Tab.

Gen., 1775. Less., Nouv. Tabl. Règn. Anim., Mamm., 1842, p. 152. Gray, Proc. Zoöl. Soc., 1865, p. 383. Type *Myrmecophaga tetradactyla* Linnæus.

Tamanduas F. Cuv., Dict. Scien. Nat., LIX, 1829, p. 501.

Uroleptes Wagl., Nat. Syst. Amphib., 1830, p. 36.

21. **Tamandua tetradactyla** (Linnæus).

Myrmecophaga tetradactyla Linn., Syst. Nat., I, 1758, p. 35.

Myrmecophaga myosura Pall., Miscell., 1766, p. 64.

Ursine Anteater Griff., Anim. Kingd., III, 1827, p. 304, pl.

Myrmecophaga crispus Rupp., Mus. Senck., III, 1845, p. 179.

Tamandua bivittata Gray, Proc. Zoöl. Soc., 1865, p. 384.

Myrmecophaga quadridactyla True, Proc. U. S. Nat. Mus., 1885, p. 588.

Tamandua tetradactyla Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 27, figs. 7, IX, X. Zool. Ser.

THREE-TOED ANTEATER. *Tejon, Oso Colmenero* in Costa Rica.

Type locality. "America Meridionali," Brazil?

Geogr. Distr. Mexico, through Central America to Peru and Paraguay, South America.

a. * *Tamandua tetradactyla tenuirostris* Allen.

Tamandua tetradactyla tenuirostris Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 394.

SLENDER NOSE ANTEATER.

Type locality. Passa Nueva, State of Vera Cruz, Mexico.

Geogr. Distr. Range unknown.

Genl. Char. Size large; tail long as head and body.

Color. "Light areas white faintly tinged with yellowish, the yellow tint a little stronger on the nuchal-interscapular space; median light dorsal line extending to hips; dark area purplish black sharply defined against the white, and reaching the base of the tail above and below."

Measurements. Total length, 1185; tail, 600; hind foot, 95. Skull: occipito-nasal length, 133; width of braincase, 42; length of nasals, 55.

b. * *Tamandua tetradactyla chiriquensis* Allen.

Tamandua tetradactyla chiriquensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 295.

CHIRIQUI ANTEATER.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Range unknown.

Genl. Char. Size large; tail as long as head and body.

Color. Dark areas deep brownish black; light areas dull brownish buffy white; deeper on nuchal-interscapular region. The black extending for nearly four inches on the basal portion of the tail. Light median dorsal stripe terminates considerably in front of hips.

Measurements. Total length, 1180; tail, 555; hind foot, 100; ear, 50. Skull: occipito-nasal length, 132.5; width of braincase, 42; length of nasals, 55.

22. *Tamandua sellata* (Cope).

Myrmecophaga sellata Cope, Amer. Nat., XXIII, 1889, p. 183.

*The specific standing of these two named forms depends upon the results of a comparison between them and specimens from Honduras, the type locality of *M. sellata* Cope, for it may be that one, perhaps both, will prove to be synonymous with that species.

Tamandua sellata Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 28. Zool. Ser.

SADDLE-BACKED ANTEATER.

Type locality. Honduras.

Geogr. Distr. Honduras to French Guiana? South America;
range unknown.

Genus 10. *Myrmecophaga*. Great Anteaters.

Myrmecophaga Linn., Syst. Nat., I, 1758, p. 35. Type *Myrmecophaga tridactyla* Linnæus.

Falcifer Rehn, Amer. Nat., XXXIV, 1900, p. 576.

23. *Myrmecophaga tridactyla* Linnæus.

Myrmecophaga tridactyla Linn., Syst. Nat., I, 1758, p. 35. Elliot,
Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt.
I, 1904, p. 29, figs. 8, XI. Zool. Ser.

Myrmecophaga jubata Linn., Syst. Nat., I, 1766, p. 52.

Falcifer jubata Rehn, Amer. Nat., XXXIV, 1900, p. 576.

GREAT ANTEATER.

Type locality. Brazil.

Geogr. Distr. Guatemala to Brazil.

Family III. *Dasypodidae*. Armadillos.

Subfamily I. *Dasypodinae*.

Genus 11. *Cabassous*.

Cabassous McMurtrie, Cuv. Anim. Kingd., I, 1831, p. 164. Type
Dasypus uncinatus Linnæus.

Xenurus Wagl., Nat. Syst. Amph., 1830, p. 36. (nec Boie, Aves,
1826.)

Arizostus Glog., Hand- u. Hilfsb. Naturg., I, 1841, pp. XXXII, 114.

Tatona Gray, Proc. Zool. Soc., 1865, p. 378.

Lysiurus Ameghino, Rev. Argent. Hist. Nat., I, 1891, entr. 4a,
p. 254.

24. *Cabassous centralis* (Miller).

Tatona (Ziphila) centralis Miller, Proc. Biol. Soc. Wash., XIII,
1899, pp. 4, 7.

Xenurus cinereus hispidus True, Proc. U. S. Nat. Mus., 1896, p. 345.

Cabassous centralis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 32, fig. XII, pl. III. Zoöl. Ser.

MILLER'S ARMADILLO.

Type locality. Chamelicon, Honduras.

Geogr. Distr. Honduras, Central America; range unknown.

Subfamily II. **Tatuinæ.**

Genus 12. **Tatu.**

Tatu Frisch, Nat. Syst. vierfüss. Thiere, in Tabellen, 5, Tab. Gen., 1775. Blumenb. Handb. Naturg., 1799, p. 73. Type *Dasy-
pus novemcinctus* Linnæus.

Tatusia F. Cuvier, in Less. Man. de Mamm., 1827, p. 309.

Cachicamus McMurtrie, G. Cuv. Anim. Kingd., 1, 1831, p. 163.

25. Tatu novemcinctum (Linnæus).

*Dasy-
pus novemcinctus* Linn., Syst. Nat., 1, 1758, p. 51; 1, 1766, p. 51.

*Dasy-
pus octo-cinctus* (Linn.), Schreb. Säugth., II, 1775, p. 222, tab. LXXIII, LXXVI.

*Dasy-
pus peba* Desm., Mamm., 1820, p. 368.

*Dasy-
pus longicaudus* Max., Breit. Naturg. Bras., II, 1825, p. 531.

*Dasy-
pus mexicanus fenestratus* Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1864, p. 180.

Tatusia leptorhyncha Gray, Handl. Edent., 1873, p. 14, pl. 2, figs. 3, 4.

Cabassous novemcinctus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 4, pl. 1. Zoöl. Ser.

Tatu novemcinctum Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 33, figs. 9, XIII. Zoöl. Ser.

NINE-BANDED ARMADILLO.

Type locality. "America meridionali," Brazil?

Geogr. Distr. Texas, through Mexico and Central America to Paraguay, South America.

Order III. **Sirenia. Sirenians.**

Family I. **Hydrodamalidæ.**

Genus 13. **Hydrodamalis. Sea Cows.**

Hydrodamalis Retzius, Kongl. Vetensk. Acad. Nya. Handl. Stockholm, xv, 1794, p. 292. Type *Hydrodamalis stelleri* Retzius = *Manatus gigas* Zimmermann.

Rytina Illig., Prodr. Syst. Mamm. et Av., 1811, p. 141.

Rhytina Glog., Hand- u. Hilfsb. Naturg., 1841, pp. xxxiv, 165.

26. **Hydrodamalis gigas** (Zimmermann).

Manatus gigas Zimm., Geogr. Gesch., II, 1780, p. 426, fig. 5.

Hydrodamalis gigas Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 5, pl. II. Zoöl. Ser.

STELLER'S SEA COW.

Type locality. Shores of Bering Island, Bering Sea.

Geogr. Distr. Bering and Copper Islands, Bering Sea.

Family II. **Trichechidæ. Manatees.**

Genus 14. **Trichechus.**

Trichechus Linn., Syst. Nat., I, 1758, p. 34. Type *Trichechus manatus* Linnæus.

Manatus Brünn., Zool. Fund., 1772, pp. 34, 38, 39. Scopoli, Intr. Hist. Nat., 1777, p. 490. Storr, Prodr. Meth. Mamm., 1780, p. 41.

27. **Trichechus manatus** Linnæus.

Trichechus manatus Linn., Syst. Nat., I, 1758, p. 34; I, 1766, p. 49.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 37, fig. xiv, pls. iv, v. Zoöl. Ser.

Manatus latirostris Harl., Journ. Acad. Nat. Scien. Phil., 1824, p. 111. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 6, pl. III. Zoöl. Ser.

Manatus australis Tilesius, Jahrb. Naturg., I, 1802, p. 23.

Manatus americanus Desm., Dict. Hist. Nat., 1817, p. 262, pl. 96. (Part.)

Manatus fluviatilis Wagn., Schreb. Säugth., Suppl., 1846, pl. 379.

MANATEE. *Vacca de Agua* in Guatemala.

Type locality. East coast of Florida.

Geogr. Distr. Florida coast to Yucatan, Mexico.

Order IV. **Cetacea. Cetaceans.**

Family I. **Balænidæ. Baleen Whales.**

Subfamily I. **Balæninæ.**

Genus 15. **Balæna.**

Balæna Linn., Syst. Nat., 1, 1758, p. 75; 1, 1766, p. 105. Type
Balæna mysticetus Linnæus.

Leio-balæna Eschr., K. Danske Vidensk. Selsk. Skrifter, Naturv.
Math. Afd. Kjöbenh., 5te Række, 1, 1849, p. 108; Unters. Nord.
Wallth., 1849, p. 7.

Eubalæna Gray, Proc. Zoöl. Soc., 1864, p. 201.

Hunterus Gray, Ann. Mag. Nat. Hist., 3d Ser., xiv, 1864, p. 349.

Hunterius Gray, Cat. Seals and Whales, 1866, p. 98.

Macleayius Gray, Proc. Zoöl. Soc., 1864, p. 589, figs. 1, 2. *Id.* Cat.
Seals and Whales, 1866, p. 78.

28. **Balæna glacialis** Bonnaterre.

Balæna glacialis Bonn., Tab. Encycl. Méthod. des trois Règnes de
la Nature, Cétol., 1789, p. 3. Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., 11, 1901, p. 8, fig. 2. *Id.* Mamm. Middle
Amer. & W. Indies, F. C. M. Pub., 1v, Pt. 1, 1904, p. 39,
fig. 10. Zoöl. Ser.

Balæna biscayensis Eschr., Rev. Mag. Zool., 2me Sér., 1860, p. 229.

Eubalæna australis Gray, Proc. Zoöl. Soc., 1864, p. 202.

Balæna cisarctica Cope, Proc. Acad. Nat. Scien. Phil., 1865, pp.
168-169.

Balæna britannicus Gray, Ann. Mag. Nat. Hist., 4th Ser., 1870,
p. 200.

Balæna australis var. *biscayensis* Lydekk., Brit. Mamm., 1895,
p. 260.

ICE BALEEN WHALE.

Type locality. Coast of Maryland.

Geogr. Distr. North Atlantic Ocean, south to Maryland on
American coast.

29. **Balæna sieboldii** Gray.

Balæna sieboldii Gray, Ann. Mag. Nat. Hist., 3d Ser., 1864, p. 349.

Balæna antarctica Schleg., Abh. Geb., 1841, p. 37. (Part.)

Balæna australis Temm., Faun. Japon., Mamm., 1842, pls. 28, 29.
(nec Desmoul.)

Balæna aleoutiensis Van Ben., Bull. Acad. Belg., xxv, 1868, p. 16.

Balæna sieboldii Elliot, Syn. N. Amer. Mamm., F. C. M. Pub., 11, 1901, p. 8. Zoöl. Ser.

SIEBOLD'S BALEEN WHALE.

Type locality. Coast of Japan.

Geogr. Distr. North Pacific Ocean, Bering Sea, coast of North America from California to the Aleutian Islands, and westward to longitude 150.°

30. *Balæna mysticetus* Linnæus.

Balæna mysticetus Linn., Faun. Seuc., 11, 1761, p. 16. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 8. Zoöl. Ser.

Balæna groenlandica Linn., Mus. Ad. Frid., 1, p. 51.

Balæna mysticetus pittekajensis Malmg., Bikang. Svensk. Ak. Handl., VIII, 1883, fig.

BOWHEAD. ARCTIC RIGHT WHALE.

Type locality. Greenland Seas.

Geogr. Distr. Arctic Ocean, Bering Sea, south to north latitude 64° on east coast of Greenland, and also to coast of Labrador; in Bering Sea to north latitude 55°, and in Sea of Okhotsk to latitude 54°.

31. *Balæna kuzira* (Gray).

Megaptera kuzira Gray, Cat. Seals and Whales, 1866, p. 130.

Balæna allamak Pall., Zoog. Rosso-Asiat., 1, 1831, p. 288.

Balæna antarctica Temm., Faun. Japon., 1842, p. 21, pl. 30. (nec F. Cuv.)

Balæna australis Schrenck, Reis. Amur-Land, 1, 1858, p. 193. (nec Gray.)

Balæna kuzira Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 9. Zoöl. Ser.

GRAY'S JAPANESE BALEEN WHALE.

Type locality. Coast of Japan.

Geogr. Distr. Japan Seas, North Pacific, Bering Sea.

Genus 16. *Rhachianectes*.

Rhachianectes Cope, Proc. Acad. Nat. Scien. Phil., 1869, p. 15.

Type *Agaphelus glaucus* Cope.

32. *Rhachianectes glaucus* (Cope).

Agaphelus glaucus Cope, Proc. Acad. Nat. Scien. Phil., 1868, p. 159; 1869, p. 15.

Rhachianectes glaucus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 9, and Suppl., p. 478. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 40, pls. VI, VII, VIII. Zoöl. Ser.

GRAY'S BALEEN WHALE.

Type locality. Coast of California.

Geogr. Distr. Coast of Lower California, Mexico, to the North Pacific and Arctic Oceans; Okhotsk and Bering Seas.

Genus 17. **Megaptera.**

Megaptera Gray, Erebus & Terror, Zoöl., 1846, p. 16. Type *Balæna longimana* Rudolphi = *Balæna nodosa* Bonnaterre.

Megapteron Wagn., Archiv f. Naturg., 1847, Bd. II, p. 38.

Kyphobalæna Eschr., K. Danske Vidensk. Selsk. Skrifter, Naturv. & Math. Afd. Kjöbenh., 5te Række, I, 1849, p. 108. *Id.* Unter. Nord. Wallth., 1849, p. 56.

Megapteropsis Van Ben., Bull. Acad. Roy. Sci. de Belgique, 2e Sér., xxxiv, 1872, p. 15.

Pæscopia Gray, Proc. Zoöl. Soc., 1864, p. 207, fig. 3. *Id.* Cat. Seals and Whales Brit. Mus., 1866, pp. 113, 125, fig. 19.

33. Megaptera nodosa (Bonnat).

Balæna nodosa Bonn., Tabl. Encyclop. and Méth. des trois Règnes de la Nature, Cétol., 1789, p. 5.

Balæna longimana Rudolphi, Abh. Ak. Berl., 1829, pls. 1-5.

Balæna boops (nec Linn.) (*keporkak*) Eschr., K. Dansk. Vid. Selskabs. Ath., XL, 1845, p. 239, t. 1, 3, 4.

Megaptera americana Gray, Erebus & Terror, Zoöl. 1846, p. 17.

Megaptera nodosa Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 10. Zoöl. Ser.

ARCTIC BALEEN WHALE.

Type locality. Coast of New England States.

Geogr. Distr. Arctic and North Atlantic Oceans.

a. Megaptera nodosa osphyia Cope.

Megaptera nodosa osphyia Cope, Proc. Acad. Nat. Scien. Phil., 1865, pp. 178-180. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 10.

COPE'S BALEEN WHALE.

Type locality. Coast of Maine forty miles from Petit Menan lighthouse.

Geogr. Distr. Atlantic Ocean.

b. *Megaptera nodosa bellicosa* Cope.

Megaptera nodosa bellicosa Cope, Proc. Am. Phil. Soc., XII, 1870,
p. 103. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. I, 1904, p. 41, pls. IX, X, XI. Zoöl. Ser.

FIGHTING BALEEN WHALE.

Type locality. Vicinity of St. Bartholomew's Island, West Indies.
Geogr. Distr. Caribbean Sea, Gulf of Mexico, South Atlantic.

34. *Megaptera versabilis* Cope.

Megaptera versabilis Cope, Proc. Acad. Nat. Scien. Phil., 1869,
p. 15. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 10. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub.,
IV, Pt. I, 1904, p. 41. Zoöl. Ser.

MOBILE BALEEN WHALE.

Type locality. Northwestern coast of North America.
Geogr. Distr. North Pacific Ocean to Alaska.

Subfamily II. Balænopterinæ. Finback Whales.**Genus 18. Balænoptera.**

Balænoptera Lacép., Hist. Nat. Cét., 1804, pp. xxxvi-xxxvii,
114-141, pls. IV figs. 1, 2, V fig. 1, VI-VIII. Type *Balænoptera*
gibbar Desmoulins.

Physalus Lacép., Hist. Nat. Cét., Ordres, Genres et Espèces, 1804,
pp. XL, 219-226.

Cetoptera Rafin., Analyse Nat., Adden., 1815, p. 219.

Benedenia Gray, Proc. Zoöl. Soc., 1864, p. 211, figs. 16, 17.

Sibbaldus! Gray, Proc. Zoöl. Soc., 1864, p. 222.

Sibbaldius Flower, Proc. Zoöl. Soc., 1864, p. 391.

Cuvierius Gray, Cat. Seals and Whales, 1866, pp. 114, 164; 1871,
p. 54.

**Agaphelus* Cope, Proc. Acad. Nat. Scien. Phil., 1868, p. 223.

35. *Balænoptera acuto-rostrata* Lacépède.

Balænoptera acuto-rostrata Lacép., Hist. Nat. Cét., XII, I, 1803-4,
p. 197, pl. 8. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 11, fig. 3. Zoöl. Ser.

Rorqualus minor Knox, Jour. Inst., 1834, p. 336.

Agaphelus gibbosus Cope, Proc. Acad. Nat. Scien. Phil., 1869,
p. 15. (nec Erxl.) Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 11. Zoöl. Ser.

*See True, Smith. Contr. Knowledge, xxxiii, 1904, p. 105.

Balænoptera Mondini Capell., Mem. Acad. Bologn., 1877, VII, pl. 1-4.

SHARP-NOSED FINBACK WHALE.

Type locality. —?

Geogr. Distr. North Atlantic, Davis Straits.

36. *Balænoptera davidsoni* Scammon.

Balænoptera davidsoni Scamm., Proc. Calif. Acad. Scien., IV, 1872, p. 269. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 12. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 42, pls. XII, XIII, XIV. Zoöl. Ser.

DAVIDSON'S FINBACK WHALE.

Type locality. Admiralty Inlet, coast of Washington, North Pacific Ocean.

Geogr. Distr. West coast of North America, Mexico to Bering Sea.

37. *Balænoptera velifera* Cope.

Balænoptera velifera Cope, Proc. Acad. Nat. Scien. Phil., 1869, p. 16. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 12. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 43. Zoöl. Ser.

PACIFIC FINBACK WHALE.

Type locality. Shores of Oregon and California.

Geogr. Distr. North Pacific Ocean; coasts of California and Oregon; Commander Islands.

a. Balænoptera velifera copei Elliot.

Balænoptera borealis Dall, in Scammon Mar. Mamm. N. W. Amer., 1874, p. 303, fig. p. 37. (nec Lesson.)

Balænoptera velifera copei Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 13. Zoöl. Ser.

COPE'S FINBACK WHALE.

Type locality. Shumagin Islands, Alaska.

Geogr. Distr. Northern Seas and about the Aleutian Islands.

38. *Balænoptera physalus* (Linnæus).

Balæna physalus Linn., Syst. Nat., I, 1766, p. 106.

Balæna boops Linn., Syst. Nat., I, 1766, p. 106.

Balænoptera roqual Lacép., Hist. Nat. Cét., 1803-4, pp. 37, 126, t. I, fig. 3.

Physalus duguidii Heddle, Proc. Zoöl. Soc., 1856, p. 187. Gray, Proc. Zoöl. Soc., 1864, p. 221.

Pterobalæna communis Van Ben., Bull. Acad. Brux., 1re Ser., I, 1857, p. 403.

Benedenia knoxii Gray, Proc. Zoöl. Soc., 1864, p. 212.

Balænoptera physalus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 13. Zoöl. Ser.

NORTHERN FINBACK WHALE.

Type locality. Unknown. Atlantic coast of Europe.

Geogr. Distr. Arctic and Atlantic Oceans; Mediterranean Sea. On North American coast from Greenland to New Jersey.

39. *Balænoptera borealis* (Lesson).

Balæna borealis Less., Hist. Nat. Cét., 1828, p. 342.

Balænoptera borealis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 13. Zoöl. Ser.

LESSON'S FINBACK WHALE.

Type locality. — ?

Geogr. Distr. Arctic and North Atlantic Oceans; Mediterranean Sea.

40. *Balænoptera musculus* (Linnæus).

Balæna musculus Linn., Syst. Nat., I, 1766, p. 106.

Balæna physalus Pall., Zoogr. Rosso-Asiat., 1830, p. 289.

Physalus (*Rorqualus*) *sibbaldii* Gray, Proc. Zoöl. Soc., 1847, p. 92.

Sibbaldius tectirostris Cope, Proc. Acad. Nat. Scien. Phil., 1869, p. 17.

Balænoptera musculus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 13. Zoöl. Ser.

BLUE FINBACK WHALE.

Type locality. Coast of Yorkshire, England.

Geogr. Distr. Arctic and North Atlantic Oceans.

41. *Balænoptera sulfurea* (Cope).

Sibbaldius sulfureus Cope, Proc. Acad. Nat. Scien. Phil., 1869, p. 20.

Balænoptera sulfurea Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 14. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 43. Zoöl. Ser.

YELLOW-BELLIED FINBACK WHALE.

Type locality. Northwest coast of North America.

Geogr. Distr. North Pacific Ocean to Bering Sea.

Family II. **Physeteridæ. Sperm Whales.**

Subfamily I. **Physeterinæ.**

Genus 19. **Physeter.**

Physeter Linn., Syst. Nat., I, 1758, p. 76; I, 1766, p. 107. Type *Physeter macrocephalus* Linnæus.

Catodon Linn., Fauna Suecica, 2d ed., 1761, p. 18.

Tursio Fleming, Phil. Zoöl., 11, 1822, p. 211. (nec Wagler, nec Gray.)

42. *Physeter macrocephalus* Linnæus.

Physeter macrocephalus Linn., Syst. Nat., 1, 1758, p. 76; 1, 1766, p. 107, fig. 4. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 15. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 45, figs. 11, xvi. Zoöl. Ser.

Catodon macrocephalus Gray, Cat. Seals and Whales, 1866, p. 202.

CACHALOT SPERM WHALE.

Type locality. North Atlantic.

Geogr. Distr. All seas.

Genus 20. *Hyperoodon*.

Hyperoodon Lacép., Hist. Nat. Cét., 1804, p. XLIV. Type *Delphinus butskopf* Bonn. = *Balæna rostrata* Müller.

Ancylodon Illig., Prodr. Syst. Mamm. et Av., 1811, p. 142.

Uranodon Illig., Prodr. Syst. Mamm. et Av., 1811, p. 143.

Cetodiodon Jacobs, Dublin Phil. Jour. and Scient. Rev., 1825, t.

Chænodelphinus Eschr., Forhandl. Skandinav. Naturforsk., 3die möte, Stockholm, 1843, pp. 651-655.

Chænocetus Eschr., Oversigt K. Danske Vidensk. Selsk. Forhandl. Kjöbenh., 1846. *Id.* K. Danske Vidensk. Selsk. Skrifter, Naturv. and Math. Afd. Kjöbenh. 5te Række, 1, 1849, p. 97.

Lagenocetus Gray, Proc. Zoöl. Soc., 1863, p. 200.

43. *Hyperoodon rostratus* (Müller).

Balæna rostrata Müll., Zool. Dan. Prodr., 1776, p. 7.

Delphinus bidentatus Bonn., Tab. Encycl. and Méth. des trois Règnes de la Nature, Cétol., 1789, p. 25.

Delphinus butskopf Bonn., Tab. Encycl. and Méth. des trois Règnes de la Nature, Cétol., 1789, p. 25.

Delphinus anarnacus Desm., Mamm., 1820, p. 550, No. 780.

Delphinus hunteri Desm., Mamm., 1820, p. 520, No. 782.

Hyperoodon latifrons Gray, Erebus & Terror, Zoöl., 1846, p. 27, pl. 4.

Lagenocetus latifrons Gray, Proc. Zoöl. Soc., 1864, p. 241.

Delphinus hyperoodon Schleg., Zoogd. Nederl., 1870, p. 94, pl. 18.

Hyperoodon rostratus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 16, pl. iv. Zoöl. Ser.

BEAKED SPERM WHALE.

Type locality. — ?

Geogr. Distr. North Atlantic Ocean, Davis Straits, Hudson Straits.

Genus 21. **Cogia.**

Kogia ! Gray, Voy. Erebus and Terror, Zoöl., Mamm., I, 1846, p. 22.

Type Physeter breviceps Blainville.

44. **Cogia breviceps** (Blainville).

Physeter breviceps Blainv., Ann. Anat. Phys., II, 1838, p. 337.

Kogia floweri Gill, Amer. Nat., IV, 1871, p. 738, fig. 172.

Kogia breviceps Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 479, pls. L, LI, LII. Zoöl. Ser.

Cogia breviceps Elliot, Mamm. Middle Amer. & W. Indies, F.

C. M. Pub., IV, Pt. I, 1904, p. 46, pls. XV, XVI, XVII. Zoöl. Ser.

PIGMY SPERM WHALE.

Type locality. Cape of Good Hope.

Geogr. Distr. Indian and Pacific Oceans; coast of southern California, possibly of Mexico and Atlantic coasts of North America.

Genus 22. **Ziphius. Two-toothed Whales.**

Ziphius G. Cuv., Rech. Oss. Foss., 2d ed., v, Pt. I, 1823, p. 352, pl. xxvii, figs. 3, 4, 7, 9. *Type Ziphius cavirostris* G. Cuvier.

Aliama Gray, Proc. Zoöl. Soc., 1864, p. 242.

Petrorhynchus Gray, Proc. Zoöl. Soc., 1865, p. 524.

Ziphiorrhynchus Burm., Revista Farmac., Bull. Acad. Belg., 1865.

Id. Ann. Mag. Nat. Hist., 3d Ser., xvii, 1866, p. 94.

Mesoodon Brandt, Mém. Acad. Imp. Scien. St. Pétersb., 7th Ser., xx, 1873, p. 220.

45. **Ziphius cavirostris** G. Cuvier.

Ziphius cavirostris G. Cuv., Rech. Oss. Foss., 2d ed., v, 1823, p. 353. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 17. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 47, pls. xviii, xix, xx. Zoöl. Ser.

TWO-TOOTHED SPERM WHALE.

Type locality. Coast of France, Mediterranean Sea.

Geogr. Distr. All seas.

46. Ziphius grebnitzkii Stejneger.

Ziphius grebnitzkii Stejneger, Proc. U. S. Nat. Mus., 1883, p. 77.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl.,
 p. 480. Zoöl. Ser.

GREBNITZKY'S TWO-TOOTHED SPERM WHALE.

Type locality. Bering Island, Bering Sea.
Geogr. Distr. Bering and adjacent northern seas.

Genus 23. Mesoplodon.

Mesoplodon Gerv., Ann. Scien. Nat. Paris, 1850, 3d Ser., XIV, p. 16.
 Zoöl. *Type Delphinus sowerbiensis* Blainville = *Physeter bidens*
 Sowerby.

47. Mesoplodon bidens (Sowerby).

Physeter bidens Sowerby, Brit. Miscell., I, 1804, p. 1.
Delphinus sowerbyi Blainv., Nouv. Dict. Hist. Nat., IX, 1817,
 p. 197.
Delphinus sowerbiensis Blainv., Nouv. Dict. Hist. Nat., IX, 1817,
 p. 197.
Delphinus epidon Desm., Mamm., 1821, p. 521, No. 786.
Dauphindo dale Blainv., Bull. Soc. Philom., 1825, p. 139, desc.
Delphinus micropterus Cuv., Règn. Anim., 1829, p. 288.
Mesoplodon bidens Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 18. Zoöl. Ser.

SOWERBY'S SPERM WHALE.

Type locality. Coast of Elginshire, England.
Geogr. Distr. North Atlantic Ocean.

48. Mesoplodon stejnegeri True.

Mesoplodon stejnegeri True, Proc. U. S. Nat. Mus., 1885, p. 384,
 pl. 25.
Balanoptera stejnegeri Elliot, Syn. N. Am. Mamm., F. C. M.
 Pub., II, 1901, p. 14. Zoöl. Ser.

STEJNEGER'S SPERM WHALE.

Type locality. Coast of the Commander Islands.
Geogr. Distr. Bering Sea.

Genus 24. Berardius.

Berardius Duvernoy, Ann. Scien. Nat. Paris, 3me Sér., Zool., XV,
 1851, p. 41. *Type Berardius arnuxii* Duvernoy.

49. Berardius bairdi Stejneger.

Berardius bairdi Stejneger, Proc. U. S. Nat. Mus., 1883, p. 75.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl.,
p. 481, pls. LIII, LIV, LV. Zoöl. Ser.

BAIRD'S SPERM WHALE.

Type locality. Stare Gavan, Bering Island.

Geogr. Distr. Northern Pacific Ocean; Bering Sea.

Family III. **Delphinidæ. Dolphins, Porpoises, etc.**Subfamily I. **Delphinapterinæ.**Genus 25. **Monodon.**

Monodon Linn., Syst. Nat., I, 1766, p. 105. Type *Monodon monoceros* (sic) Linnæus.

Ceratodon Briss., Règn. Anim., I, 2d ed., 1762, p. 231.

Diodon Storr., Prodr. Meth. Mamm., 1780, p. 42, Tab. C.

Narwalus Lacép., Hist. Nat. Cét., 1804, pp. xxxvii-xxxviii, 142-163, pl. ix, fig. 1.

Oryx Oken, Lehrb. Naturg., 3ter Theil, 2te Abth., 1816, p. 672.

Tachynices Brookes, Cat. Anat. and Zoöl. Mus. Jos. Brookes, Lond., 1828, p. 40.

50. Monodon monoceras Linnæus.

Monodon monoceros (sic) Linn., Syst. Nat., I, 1766, p. 105.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 19,
fig. 6. Zoöl. Ser.

Narwalus vulgaris Lacép., Hist. Nat. Cét., 1804, p. 142.

Narwalus andersoni Lacép., Hist. Nat. Cét., 1804, p. 163, pl. 9,
fig. 1.

Monodon microcephalus Flem., Mem. Wern. Nat. Hist. Soc., I,
1811, t.

Tachynices megacephalus Brookes, Cat. Anat. Zoöl. Mus., 1828,
p. 40.

NARWHAL.

Type locality. Greenland Sea.

Geogr. Distr. Arctic Sea.

Genus 26. **Delphinapterus.**

Delphinapterus Lacép., Hist. Nat. Cét., 1804, pp. xli, 243-249.

Type *Delphinapterus beluga* Lacépède = *Delphinus leucas* Pallas.

51. Delphinapterus leucas (Pallas).

Delphinus leucas Pallas, Reise in Russisch. Reich., III, 1776, p. 92, pl. 79.

Delphinapterus beluga Lacép., Hist. Nat. Cét., 1804, p. 243.

Cetus albicans Briss., Règn. Anim., 17, p. 359.

Delphinus canadensis Desm., Mamm., 2d Pt., 1822, p. 516.

Beluga rhinodon Cope, Proc. Acad. Nat. Scien. Phil., 1865, p. 278.

Beluga concreta Cope, Proc. Acad. Nat. Scien. Phil., 1865, p. 278.

Beluga declivis Cope, Proc. Acad. Nat. Scien. Phil., 1865, p. 278.

Beluga angustata Cope, Proc. Acad. Nat. Scien. Phil., 1869, p. 25.

Delphinapterus leucas Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 19, pl. v. Zoöl. Ser.

WHITE WHALE.

Type locality. Coast of Siberia.

Geogr. Distr. Arctic and sub-Arctic seas; south to Cape Cod, Massachusetts.

Genus 27. Phocæna. Porpoises.

Phocæna G. Cuv., Nouv. Dict. Hist. Nat., 2d ed., IX, 1817, p. 163.

Id. Règn. Anim., 1829, p. 289. *Type Delphinus phocæna* Linnæus.

52. Phocæna phocæna (Linnæus).

Delphinus phocæna Linn., Syst. Nat., I, 1758, p. 77.

Phocæna communis G. Cuv., Règn. Anim., 1817, p. 279.

Phocæna vomerina Gill, Proc. Acad. Nat. Scien. Phil., 1865, p. 178.

Phocæna brachycium Cope, Proc. Acad. Nat. Scien. Phil., 1865, p. 279; 1876, p. 134.

Phocæna lineata? Cope, Proc. Acad. Nat. Scien. Phil., 1876, pp. 134, 135.

Phocæna communis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 20, pl. v.

Phocæna phocæna Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 48, fig. XVII, pl. XXI. Zoöl. Ser.

COMMON PORPOISE.

Type locality. Coast of Europe.

Geogr. Distr. North Atlantic and North Pacific Oceans.

53. Phocæna dalli True.

Phocæna dalli True, Proc. U. S. Nat. Mus., 1885, p. 95, pls. 2-6.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 21, fig. 7. Zoöl. Ser.

DALL'S PORPOISE.

Type locality. Strait west of Adakh Island, Aleutian Group.

Geogr. Distr. North Pacific Ocean, Alaska, Aleutian Group.

Genus 28. **Orcinus.** Killer Whales.

Orcinus Fitzin., Wiss-Populäre Naturg. Säugeth., VI, 1860, pp. 204, 217. Type *Delphinus orca* Linnæus.

54. **Orcinus orca** (Linnæus).

Delphinus orca Linn., Syst. Nat., I, 1758, p. 77.

Delphinus gladiator Bonnat., Tab. Encycl. & Méth. des trois Règnes de la Nature, Cétol., 1789, p. 23.

Orca schlegelii Lilljeb., Ray Soc., 1866, p. 235.

Orca arcticus Gerv. & Van Ben., Ost. Cét., 1868, p. 314.

Orca europæus Gerv. & Van Ben., Ost. Cét., 1868, p. 314.

Orca latirostris Gerv., Ost. Cét., 1868, p. 543.

Orca stenorhyncha Gray, Proc. Zool. Soc., 1870, p. 71.

Orcinus gladiator Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 22, pl. VI. Zool. Ser.

Orcinus orca Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 51, fig. XVIII, pl. XXII. Zool. Ser.

COMMON KILLER WHALE.

Type locality. Coast of Europe.

Geogr. Distr. All seas.

55. **Orcinus rectipinna** (Cope).

Orca rectipinna Cope Proc. Acad. Nat. Scien. Phil., 1869, p. 22, figs. 15, 16.

Orca ater! Cope, Proc. Acad. Nat. Scien. Phil., 1869, pp. 22, 57, fig. 17.

Orcinus rectipinna Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 22. Zool. Ser.

COPE'S KILLER WHALE.

Type locality. Pacific coast of the United States.

Geogr. Distr. Pacific Ocean. California to the Aleutian Islands.

Genus 29. **Pseudorca.**

Pseudorca Reinh., Overs. K. Dan. Vidensk. Selsk. Forh. Kjöbenh., 1862, p. 151. Type *Phocæna crassidens* Owen.

56. Pseudorca crassidens (Owen).

Phocæna crassidens Owen, Brit. Foss. Mamm., 1846, p. 516.

Orca (Pseudorca?) meridionalis Flower, Proc. Zool. Soc., 1864, p. 420.

Orca destructor Cope, Proc. Acad. Nat. Scien. Phil., 1866, p. 293.

Globiocephalus grayi Burm., Ann. Mus. Pub. Buen. Aires, I, 1864-69, p. 367, pl. XXI.

Pseudorca crassidens Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 23, pl. VI. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 51, pl. XXII. Zool. Ser.

LARGE-TOOTHED KILLER WHALE.

Type locality. Coast of Lincolnshire, England.

Geogr. Distr. All seas.

Genus 30. Globicephalus. Blackfish.

Globicephala Less., Hist. Nat. Mamm. Ois., I, 1828, 441. *Id.* Nouv. Tabl. Règn. Anim., Mamm., 1842, p. 200. Type *Delphinus deductor* Scoresby = *Delphinus melas* Traill.

Sphærocephalus Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 323.

57. Globicephalus melas (Traill).

Delphinus melas Traill, Nichols Journ., 1809, xxiii, pl. 3.

Delphinus globiceps Cuv., Ann. Mus. Paris, 1812, p. 14. pl. I, figs. 1, 2.

Delphinus deductor Scoresby, Arct. Reg., I, 1820, t. 13, fig. 1.

Delphinus intermedius Harl., Jour. Acad. Nat. Scien. Phil., 1829, p. 51, pl. I, fig. 13.

Globiocephalus! incrassatus Gray, Proc. Zool. Soc., 1861, p. 309, fig. 1.

Sphærocephalus incrassatus Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 323.

Globiocephalus! macrorhynchus Hector, Trans. N. Zeal. Inst., VII, 1874, pl. 16, figs. 3, 3a. (nec Gray.)

Globiocephalus! melas Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 23, pl. VII. Zool. Ser.

Globicephalus melas Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 52, fig. XIX, pl. XXIII. Zool. Ser.

PILOT OR CA'ING WHALE.

Type locality. Coast of England.

Geogr. Distr. South and North Atlantic Oceans; Gulf of Mexico.

58. *Globicephalus brachypterus* Cope.

Globiocephalus! brachypterus Cope, Proc. Acad. Nat. Scien. Phil., 1876, p. 129, fig. 131. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 24. Zool. Ser.

Globicephalus brachypterus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 53. Zool. Ser.

SHORT-FINNED BLACKFISH.

Type locality. East coast of Delaware Bay, at the mouth of Meurice River.

Geogr. Distr. Gulf of Mexico, north to New Jersey, Atlantic Ocean.

59. *Globicephalus scammoni* Cope.

Globiocephalus! scammoni Cope, Proc. Acad. Nat. Scien. Phil., 1869, p. 21. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 24. Zool. Ser.

Globicephalus scammoni Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 54. Zool. Ser.

SCAMMON'S BLACKFISH.

Type locality. Coast of Lower California.

Geogr. Distr. Coast of California southward; coast of South America.

Genus 31. *Grampus*.

Grampus Gray, Spicil. Zool., 1, 1828, p. 2. Type *Delphinus griseus* Cuvier.

60. *Grampus griseus* (Cuvier).

Delphinus griseus Cuv., Ann. Mus. Paris, 1812, p. 14, pl. 1, fig. 1.

Delphinus rissoanus Desm., Mamm., 1822, p. 519.

Delphinus intermedius Harl., Journ. Acad. Nat. Scien. Phil., 1829, p. 51, t. 1.

Grampus cuvieri Gray, Ann. Mag. Nat. Hist., 1st Ser., 1846, p. 85.

Grampus stearnsii Dall, Proc. Calif. Acad. Scien., v, 1873, p. 13.

Grampus griseus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 25, pl. VII. Zool. Ser.

GRAY BLACKFISH.

Type locality. Brest, coast of France.

Geogr. Distr. North Atlantic and North Pacific Oceans. Coasts of United States, Cape Cod to Atlantic City, New Jersey; California.

Genus 32. **Lagenorhynchus. Bottle-nosed Whales.**

Lagenorhynchus Gray, Voy. Erebus & Terror, Zool., 1846, p. 34, pl. 6, fig. 3-5. Type *Delphinus leucopleurus* Rasch = *Delphinus acutus* Gray.

Leucopleurus Gray, Proc. Zool. Soc., 1866, p. 216.

61. Lagenorhynchus acutus (Gray).

Delphinus acutus Gray, Spicil. Zool., 1828, p. 2.

Delphinus eschrichti Schleg., Abh. Geb. Zool., 1841, p. 23.

Delphinus leucopleurus Rasch, Nyt. Mag. für Naturv., IV, 1843, p. 97, pls. 2, 3.

Leucopleurus arcticus Gray, Syn. Cét., 1868, p. 7.

Lagenorhynchus perspicillatus Cope, Proc. Acad. Nat. Scien. Phil., 1876, p. 136, pl. 4.

Lagenorhynchus gubernator Cope, Proc. Acad. Nat. Scien. Phil., 1876, p. 138.

Lagenorhynchus acutus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 25, pl. VIII. Zool. Ser.

SHARP-BEAKED BOTTLE-NOSED WHALE.

Type locality. Farøe Islands, North Sea.

Geogr. Distr. North Atlantic Ocean; northern coasts of United States; Cape Cod, Greenland, Farøe Islands, North Sea.

62. Lagenorhynchus thicola Gray.

Lagenorhynchus thicola Gray, Proc. Zool. Soc., 1849, p. 2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 26. Zool. Ser.

GRAY'S BOTTLE-NOSED WHALE.

Type locality. West coast of North America.

Geogr. Distr. West coast of North America.

63. Lagenorhynchus albirostris (Gray).

Delphinus albirostris Gray, Ann. Mag. Nat. Hist., 1st Ser., 1846, p. 84.

?*Delphinus ibsenii* Eschricht, Undersøg. over Hvaldy., 5te Afh., p. 73.

Lagenorhynchus albirostris Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 26, fig. 8. Zool. Ser.

WHITE-BEAKED BOTTLE-NOSED WHALE.

Type locality. Coast of Norfolk, England.

Geogr. Distr. North Atlantic Ocean, Greenland, North and Baltic Seas, Farøe Islands, Davis Straits.

64. Lagenorhynchus obliquidens Gill.

Lagenorhynchus obliquidens Gill, Proc. Acad. Nat. Scien. Phil., 1865, p. 177. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 27. Zoöl. Ser.

Delphinus longidens Cope, Proc. Acad. Nat. Scien. Phil., 1866, p. 295.

Clymene similis Gray, Proc. Zoöl. Soc., 1868, p. 147.

GILL'S BOTTLE-NOSED WHALE.

Type locality. Coast of California.

Geogr. Distr. North Pacific Ocean, Monterey to Puget Sound, United States coast.

Genus 33. Delphinus. Dolphins.

Delphinus Linn., Syst. Nat., I, 1758, p. 77; I, 1766, p. 108. Type *Delphinus delphis* Linnaeus.

Rhinodelphis Wagn., Schreb. Säugth., VII, 1846, pp. 281, 316-349.

Eudelphinus Van Ben. & Gerv., Ostéog. Cét. Viv. et Foss., 1880, p. 600.

65. Delphinus delphis Linnaeus.

Delphinus delphis Linn., Syst. Nat., I, 1758, p. 77; I, 1766, p. 108. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 28, pl. ix. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 54, pl. xxiv. Zoöl. Ser.

Delphinus fulvi-fasciatus Wagn., Schreb. Säugth., 1846, pl. 361, fig. 1.

Delphinus novæ-zelandiæ Quoy & Gaim., Voy. Astrolabe, Mamm., 1830, p. 149.

Delphinus janira Gray, Voy. Erebus & Terror, Zoöl., 1846, p. 474, pl. 22, fig. 1.

Delphinus forsteri Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 248.

Delphinus major Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 396.

Delphinus moorii Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 396.

Delphinus walkeri Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 397.

Delphinus pomeegra Owen, Trans. Zoöl. Soc., VI, 1866, p. 23, pls. 6, 8.

Delphinus bairdi Dall, Proc. Calif. Acad. Scien., v, 1873, p. 12.

Delphinus microps Burm., Desc. Phys. Argent., III, 1879, p. 534.
(nec Gray.)

Delphinus fuscus Fisch., Act. Soc. Linn. Bord., v, 1881, p. 127,
pl. IV.

Delphinus sowerbianus Fisch., Act. Soc. Linn. Bord., v, 1881,
p. 127, pl. IV.

Delphinus variegatus Fisch., Act. Soc. Linn. Bord., v, 1881, p.
127, pl. VI.

Delphinus balteatus Fisch., Act. Soc. Linn. Bord., v, 1881, p. 127,
pl. —.

Delphinus moschatus Fisch., Act. Soc. Linn. Bord., v, 1881, p.
127, pl. V.

Clymene marginatus Fisch., Act. Soc. Linn. Bord., v, 1881, p. 150.
(nec Pucheran.)

Delphinus delphis var. *curvirostris* Riggio, Nat. Sicil., II, 1883, p.
157, pl. 3.

COMMON DOLPHIN.

Type locality. Coast of Europe.

Geogr. Distr. Atlantic Ocean; Gulf of Mexico.

Genus 34. **Tursiops. Dolphins.**

Tursiops Gerv., Hist. Nat. Mamm., II, 1855, p. 323. Type *Delphinus tursio* Fabricius.

Tursio Gray, List Spec. Mamm. Brit. Mus., 1843, pp. XXIII, 105.

Id. Cat. Seals & Whales, 1866, p. 254.

66. **Tursiops truncatus** (Montagu).

Delphinus truncatus Montagu, Mem. Wern. Soc., III, 1821, p. 73.

True, Proc. Acad. Nat. Scien. Phil., 1903, p. 313.

Phocæna compressicauda Less., Nat. Hist. Cét., 1828, p. 199.

Delphinus metis Gray, Voy. Erebus & Terror, Zoöl., 1846, p. 38,
pl. 17.

Delphinus cymodoce Gray, Voy. Erebus & Terror, Zoöl., 1846,
p. 38, pl. 19.

Delphinus eurynome Gray, Voy. Erebus & Terror, Zoöl., 1846,
p. 38, pl. 18.

Tursiops tursio Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 29, pl. IX. Zoöl. Ser.

Tursiops truncatus Elliot, Mamm. Middle Amer. and W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 56, fig. XX, pl. XXIV (mis-
printed on plate *Tursiops tursio*). Zoöl. Ser.

BOTTLE-NOSED PORPOISE OR DOLPHIN.

Type locality. Coast of Greenland.

Geogr. Distr. Atlantic Ocean, Mediterranean Sea, widely distributed; coast of Atlantic States, Maine to Florida; Gulf of Mexico.

67. *Tursiops gilli* Dall.

Tursiops gilli Dall, Proc. Calif. Acad. Scien., v, 1873, p. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 29. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 56. Zoöl. Ser.

GILL'S DOLPHIN. COW FISH.

Type locality. North Pacific Ocean.

Geogr. Distr. Shores of southern and Lower California to northern part of Pacific Ocean.

Genus 35. *Lissodelphis*.

Lissodelphis Glog., Hand- u. Hilfsb. Naturg., 1841, pp. xxxiv, 169.

Type Delphinus peronii Lacépède.

Delphinapterus Less. & Garnot, Voy. Coquille, Zool., I, 1re Pt., 1826, p. 179, pl. 9, fig. 1. Gray, Voy. Erebus & Terror, Zoöl., 1846, p. 35. (nec Lacépède.)

Tursio Wagl., Nouv. Syst. Amph., 1830, p. 34. (nec Fleming.)

68. *Lissodelphis borealis* (Peale).

Delphinapteris borealis Peale, U. S. Expl. Exped., Mamm., 1848, p. 35, pl. viii, fig. 2.

Lissodelphis borealis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1904, p. 30, pl. x. Zoöl. Ser.

PACIFIC OCEAN DOLPHIN.

Type locality. Off coast of Oregon.

Geogr. Distr. North Pacific Ocean; San Diego, coast of California to Bering Sea.

Genus 36. *Prodelphinus*. Dolphins.

Prodelphinus Van Ben. & Gerv., Ostéog. Cét., Viv. et Foss., 1880, p. 604, pl. xxxviii. *Type Delphinus dubius?* Cuvier.

Clymene Gray, Proc. Zoöl. Soc., 1864, p. 237. (nec Munster, 1839.)

Clymenia Gray, Syn. Whales & Dolphins, 1868, p. 6. (nec Munster, 1839.)

69. Prodelphinus crotaphiscus (Cope).

Delphinus crotaphiscus Cope, Proc. Acad. Nat. Scien. Phil., 1865,
p. 203.

Prodelphinus crotaphiscus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 31.

TEMPORAL DOLPHIN.

Type locality. Unknown. Skull in Museum at Salem, Massachusetts.

Geogr. Distr. Unknown.

70. Prodelphinus plagiodon (Cope).

Delphinus plagiodon Cope, Proc. Acad. Nat. Scien. Phil., 1866,
p. 296.

Prodelphinus plagiodon Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1904, p. 31, fig. 9. Zool. Ser. *Id.* Mamm. Middle
Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 58,
fig. XXI. Zool. Ser.

SHARP-TOOTHED DOLPHIN.

Type locality. Eastern coast of the United States.

Geogr. Distr. Atlantic coast of the United States. Cape Hatteras
to the Gulf of Mexico.

71. Prodelphinus longirostris (Gray).

Delphinus longirostris Gray, Spicil. Zool., 1828, p. 1.

Delphinus microps Gray, Spicil. Zool., 1828, p. 1.

Delphinus alope Gray, Voy. Erebus & Terror, Zool., 1846, p. 42,
pl. 25.

Delphinus stenorhynchus Gray, Cat. Seals & Whales Brit. Mus.,
1866, p. 396.

Prodelphinus longirostris Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 58. Zool. Ser.

LONG-NOSED DOLPHIN.

Type locality. Cape of Good Hope.

Geogr. Distr. Southern Oceans. Taken off the Tres Marias
Islands, Mexico.

72. Prodelphinus euphrosyne (Gray).

Delphinus euphrosyne Gray, Voy. Erebus & Terror, Zool., 1846,
p. 40, pl. 22. *Id.* Cat. Seals & Whales Brit. Mus., 1866, p.
251.

Delphinus styx Gray, Voy. Erebus & Terror, Zool., 1846, p. 39,
pl. 2.

Delphinus tethyos Gerv., Bull. Soc. Agr. Herault, 1853, XL, p. 150,
pl. 1.

Delphinus marginatus (Duvern.) Pucher., Rev. Zool., 1854, pl. 547.

Delphinus eurynome Blyth, Cat. Mus. Asiat. Soc. Beng., 1863, p. 90. (nec Gray.)

Tursio doreides Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 400.

Clymenia euphrosinoides Gray, Syn. Whales & Dolphins, 1868, p. 6.

Clymenia novæ-zelandiæ Hector, Trans. N. Zeal. Inst., 1873, v, p. 159.

Prodelphinus euphrosyne Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 30, pl. x. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 58, pl. XXIII. Zoöl. Ser.

GRAY'S DOLPHIN.

Type locality. Unknown.

Geogr. Distr. Atlantic Ocean; Mediterranean Sea; coast of Jamaica.

73. *Prodelphinus frenatus* (Cuvier).

Delphinus frenatus Cuv., Mamm., 1825, pl. 426.

Delphinus frontalis (Duss.) Cuv., Règn. Anim., I, 1829, p. 288.

Delphinus doris Gray, Voy. Erebus & Terror, Zoöl., 1846, p. 39, pl. 20.

Delphinus clymene Gray, Cat. Seals & Whales Brit. Mus., 1866, p. 249.

Clymene normalis Gray, Proc. Zoöl. Soc., 1866, p. 214.

Prodelphinus frenatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 32. Zoöl. Ser.

BRIDLED DOLPHIN.

Type locality. ———?

Geogr. Distr. Atlantic and Indian Oceans.

Order V. **Ungulata. Hoofed Quadrupeds.**

Family I. **Tagassuidæ. Peccaries.**

Genus 37. **Tagassu.**

Tagassu Frisch, Nat. Syst. vierfüß. Thiere, in Tabellen, 3 Tab.

Gen., 1775. Type *Sus tajacu* Linnæus.

Tayassu Fisch., Zoogn., III, 1814, p. 284.

Dicotyles G. Cuv., Règn. Anim., I, 1817, p. 327.

Notophorus Fisch., Mém. Soc. Imp. Nat. Moscou, v, 1817, pp. 373, 418.

Adenonotus Brookes, Prodr. Syst. Anim., II, 1828.

Subgenus A. **Tagassu.**

74. Tagassu nanus (Merriam).

Tayassu nanus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 102.

Tagassu nanus Elliot, Mamm. Middle Amer. & W. Indies, F. C.

M. Pub., IV, Pt. I, 1904, p. 62. Zoöl. Ser.

DWARF PECCARY.

Type locality. Island of Cozumel, Yucatan.

Geogr. Distr. Only known from the Island of Cozumel, Yucatan.

75. Tagassu angulatum (Cope).

Dicotyles angulatus Cope, Amer. Nat., XXIII, 1889, p. 147.

Dicotyles tajacu Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 33, pl. XI. Zoöl. Ser. (nec Linn.)

Tagassu angulatum Elliot, Mamm. Middle Amer. & W. Indies, F.

C. M. Pub., IV, Pt. I, 1904, p. 63, pls. XXV, XXVI. Zoöl. Ser.

TEXAN PECCARY. *Moran, Jabali* in Mexico.

Type locality. Guadalupe River, Texas.

Geogr. Distr. Northeastern Mexico into Texas.

a. Tagassu angulatum humerale (Merriam).

Tayassu angulatus humeralis Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 122.

Tagassu angulatum humerale Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 63. Zoöl. Ser.

ARMERIA PECCARY.

Type locality. Armeria, State of Colima, Mexico.

Geogr. Distr. State of Colima to Tehuantepec, Mexico.

b. Tagassu angulatum yucatanense (Merriam).

Tayassu angulatus yucatanensis Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 123.

Tagassu angulatum yucatanense Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 63. Zoöl. Ser.

YUCATAN PECCARY.

Type locality. Tunkas, Yucatan.

Geogr. Distr. Arid peninsula of Yucatan.

c. Tagassu angulatum crassum (Merriam).

Tayassu angulatus crassus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 124.

Tagassu angulatum crassum Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 64. Zoöl. Ser.

HEAVY PECCARY.

Type locality. Metlaltoyuca, State of Puebla, Mexico.

Geogr. Distr. States of Puebla and Chiapas, Mexico.

d. Tagassu angulatum sonoriense (Mearns).

Dicotyles angulatus sonoriensis Mearns, Proc. U. S. Nat. Mus., XX, 1897, p. 469.

Tagassu angulatum sonoriense Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 64. Zoöl. Ser.

SONORA PECCARY.

Type locality. San Bernardino River, State of Sonora, Mexico, near Monument No. 77, Mexican boundary line.

Geogr. Distr. State of Sonora, Mexico; Arizona.

76. Tagassu crusnigrum (Bangs).

Tayassu crusnigrum Bangs, Bull. Mus. Comp. Zoöl., XXXIX, 1902, p. 20.

Tagassu crusnigrum Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 65. Zoöl. Ser.

BOQUETE PECCARY.

Type locality. Boquete, Chiriqui, Panama, Central America. Altitude, 4,000 feet.

Geogr. Distr. Panama, Central America.

Subgenus B. *Olidosus*.

Dicotyles Gray (nec Cuv.), Proc. Zoöl. Soc., 1868, p. 45.

Olidosus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 120. Type

Tayassu pecari Fischer.

77. *Tagassu pecari* (Fischer).

Tagassu pecari Fisch., Zoogn., III, 1814, p. 285.

Sus albirostris Illig., Abhandl. K. Preuss. Akad. Wiss. Berlin, 1815, p. 115.

Dicotyles labiatus Cuv., Règn. Anim., I, 1817, p. 238.

Tagassu pecari Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 66, fig. XXII, pls. XXVII, XXVIII. Zool. Ser.

WHITE-LIPPED PECCARY. Warree, Caribbanco, in Costa Rica.

Type locality. Paraguay.

Geogr. Distr. Guatemala, Central America, to Paraguay in South America.

a. *Tagassu pecari ringens* (Merriam).

Tagassu albirostris ringens Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 121.

Tagassu pecari ringens Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 66. Zool. Ser.

SAVAGE PECCARY.

Type locality. Apazote, near Yohaltem, State of Campeche, Mexico.

Geogr. Distr. State of Campeche. Range unknown.

Family II. **Cervidæ.**

Subfamily I. **Cervinæ.**

Genus 38. **Rangifer. Caribou.**

Rangifer Frisch, Das Nat. Syst. vierfüß. Thiere, in Tabellen, 3 Tab.

Gen., 1775. Type *Rangifer lapponicus* Frisch = *Cervus tarandus* Linnæus.

Tarandus Billberg, Syn. Faun. Scand., Mamm., I, 1828, Conspetus A, D, p. 22.

78. *Rangifer caribou* (Gmelin).

Cervus tarandus caribou Gmel., Syst. Nat., I, 1788, p. 177.

Cervus tarandus sylvestris Rich., Faun. Bor. Amer., Mamm., 1829, p. 250.

Cervus hastalis Agass., Sillim. Journ., 1847, p. 436.

Rangifer caribou Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 35, pl. XIII. Zool. Ser.

CARIBOU.

Type locality. Eastern Canada.

Geogr. Distr. Labrador, Lower Canada south to Nova Scotia, New Brunswick and Maine in the east; west through Quebec and Ontario to Montana, in forest lands.

79. *Rangifer terrænovæ* Bangs.

Rangifer terrænovæ Bangs, Private Pub., Boston, 1896. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1896, p. 233. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 36. Zool. Ser.

NEWFOUNDLAND CARIBOU.

Type locality. Grand Lake, Newfoundland (Allen), Codroy, Newfoundland (Bangs).

Geogr. Distr. Newfoundland. Nova Scotia?

80. *Rangifer montanus* Seton-Thompson.

Rangifer montanus Seton-Thompson, Ottawa Nat., XIII, 1899, p. 129. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 36. Zool. Ser.

MOUNTAIN CARIBOU.

Type locality. Illecillewaet watershed, near Revelstoke, Selkirk Range, British Columbia.

Geogr. Distr. Mountains of British Columbia, north into south-eastern Alaska, east into the Rocky Mountains of Alberta, and south into Idaho.

81. **Rangifer osborni* Allen.

Rangifer osborni Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 149.

OSBORN'S CARIBOU.

Type locality. Gold Range Mountains, near Sicamous, British Columbia.

Geogr. Distr. Gold Range and Cassiar Mountains, northern British Columbia.

Genl. Char. Size large; antlers large, heavy.

Color. Above brown, darkest on breast and limbs; neck brownish gray, nearly white in front; rump and ventral surface white; tail white, with a central dark brown stripe; white band above hoofs; ears dark brown.

Measurements. Total length, 2057-2210; tail vertebræ, 152.4; hind foot, 597-635; height at shoulder, 1270-1397; ear from crown,

*Specific distinctness not satisfactorily established. Increased knowledge and more specimens required.

140. Skull: basal length, 360-430; length of nasals, 122-142; zygomatic breadth, 136-157; mastoid breadth, 146-149; upper tooth row, 99-101; length of mandible, 310-330. Antlers: length of beam, 745-1235; spread at tips, 393-790.

82. *Rangifer stonii Allen.

Rangifer stonei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 143. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 483. Zool. Ser. *Id.* Pub. Field Columb. Mus., 1901, p. 61, pls. XI, XII, XIII. Zool. Ser.

STONE'S CARIBOU.

Type locality. Kenai Peninsula, Alaska.

Geogr. Distr. Unknown.

83. *Rangifer granti Allen.

Rangifer granti Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 122.

GRANT'S CARIBOU.

Type locality. Alaskan Peninsula opposite Popoff Island.

Geogr. Distr. Barren Lands, Alaskan Peninsula; Unimak Island.

Extent of range unknown.

Genl. Char. Size small; antlers light and slender; color similar to that of other caribou.

Color. Adult male at end of October. Above dark brown; top of nose blackish brown; sides of head lighter brown; shoulders and sides of neck light gray (probably white in winter); rump patch, ventral surface, and inner side of thighs white; breast dark brown; tail white, with a dark band above continued from the back through the white rump patch; legs and feet as in other caribou. Female lighter, broccoli brown.

Measurements. Total length, 1651-1905; tail vertebræ, 140-203; tarsus and foot, 470-584; height at shoulders, 903-1245. Skull: basal length, 350-375; length of nasals, 118-126; zygomatic breadth, 133-141; mastoid breadth, 111-135; upper tooth row, 96-104; length of mandible, 266-300. Antlers: beam along curve to tip, 780-1010; greatest spread, 640-890.

84. Rangifer groenlandicus (Gmelin).

Cervus groenlandicus Gmel., Syst. Nat., I, 1788, p. 177.

Rangifer groenlandicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 37. Zool. Ser.

GREENLAND OR ARCTIC CARIBOU.

*Specific distinctness not satisfactorily established. Increased knowledge and more specimens required.

Type locality. Greenland.

Geogr. Distr. Restricted to Greenland, if distinct from the animal obtained on the mainland, which cannot as yet be said to be completely established.

85. Rangifer arcticus (Richardson).

Cervus tarandus var. *arctica* Rich., Faun. Bor. Amer., Mamm., 1829, p. 241.

Rangifer dawsoni Seton-Thompson, Ottawa Nat., XIII, 1900, p. 260. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 36. Zool. Ser. Osgood, N. Am. Faun., No. 21, 1901, p. 26.

Rangifer arcticus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 37.

BARREN GROUND CARIBOU.

Type locality. Eastern Canada; shores of Hudson Bay?

Geogr. Distr. Barren grounds of Arctic America north of the tree limit, to the shores and islands of the Arctic Ocean, Greenland excepted, if the specific distinctness of the mainland animal can be proven.

86. *Rangifer pearyi Allen.

Rangifer pearyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 409.

PEARY'S CARIBOU.

Type locality. Ellesmere Land, N. Lat. 79°.

Geogr. Distr. Known only from the type locality.

Color. Pure white, except an oval grayish brown patch over posterior half of dorsal surface; legs and feet white; ears tinged with gray. Flat skin, in winter pelage.

Measurements. Total length of flat skin, 1660.

Genus 39. Alce. Moose.

Alce Frisch, Das Natur-Syst. vierfüss. Thiere, in Tabellen, 3 Tab.

Gen., 1775. H. Smith, Griff. Anim. Kingd., v, 1827, p. 303.

Type *Cervus alces* Linnæus.

Alces Jard., Nat. Libr., Mamm., III, 1835, p. 125. Type *Alces americanus* Jardine.

Alcelaphus Glog., Handb. u. Hilfsb. Naturg., 1841, p. 143. (nec de Blainville, 1816.)

Paralces Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 160.

*Specific distinctness of this animal by no means established.

87. Alce alces (Linnæus).

Cervus alces Linn., Syst. Nat., I, 1758, p. 66.

Alces americanus Jard., Nat. Libr., Mamm., 1835, p. 125. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 38, pl. xiv. Zoöl. Ser.

Alces machlis Ogilby, Proc. Zoöl. Soc., 1836, p. 135.

Alces palmatus Gray, List. Mamm. Brit. Mus., 1843, p. 182.

Cervus lobatus Agass., Proc. Bost. Soc. Nat. Hist., 1846, p. 188.

Alces muswa Rich., Zoöl. of Herald, Mamm., 1852, p. 66.

MOOSE.

Type locality. Eastern Canada.

Geogr. Distr. Labrador, Nova Scotia, New Brunswick, Maine, Quebec, Ontario, Minnesota, Montana, and north to latitude 69° east of the Rocky Mountains.

88. Alce gigas (Miller).

Alces gigas Miller, Proc. Biol. Soc. Wash., XIII, 1899, p. 57. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 38. Zoöl. Ser.

ALASKAN MOOSE.

Type locality. Tustumena Lake, Kenai Peninsula, Alaska.

Geogr. Distr. Territory of Alaska.

Genus 40. Cervus. Wapiti. American Elk.

Cervus Linn., Syst. Nat., I, 1758, p. 66. Type *Cervus elaphus* Linnæus.

Elaphus H. Smith, Griff. Anim. Kingd., v, 1827, p. 307.

Pseudocervus Hodgson, Journ. Asiat. Soc. Bengal, x, 1841, p. 914.

Strongyloceros! Owen, Brit. Foss. Mamm. & Birds, 1846, p. 470.

89. Cervus canadensis (Erxleben).

Cervus elaphus canadensis Erxl., Syst. Regn. Anim., I, 1777, p. 305.

Cervus strongyloceros Schreb., Säugth., pl. CCXLVII, 1792?

Cervus wapiti Barton, Am. Phil. Trans., 1869, p. 70.

Cervus canadensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 34, pl. XII. Zoöl. Ser.

WAPITI. AMERICAN ELK.

Type locality. Eastern Canada.

Geogr. Distr. Rocky Mountain region from northern boundary of New Mexico to British Columbia, and from the eastern base of the range westward to about the 120th meridian. East of the westward borders of the great plains it is practically extinct, although it may still linger in northern Minnesota and possibly in North Dakota.

a. Cervus canadensis occidentalis (Smith).

Cervus occidentalis H. Smith, Griff. Cuv. Anim. Kingd., iv, 1827, p. 101.

Cervus roosevelti Merr., Proc. Biol. Soc. Wash., 1897, p. 271.

Cervus canadensis occidentalis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 34. Zool. Ser.

PACIFIC COAST WAPITI.

Type locality. Northwestern America. No definite locality given.

Geogr. Distr. Vancouver Island, British Columbia; coast ranges of Washington, and Oregon to northwestern California.

90. *Cervus merriami* Nelson.

Cervus merriami Nels., Bull. Am. Mus. Nat. Hist. N. Y., 1902, pp. 1-12.

MERRIAM'S WAPITI.

Type locality. Black River, White Mountains, Arizona.

Geogr. Distr. Nearly extinct. Formerly throughout the high portion of the White and Mogollon Mountains of Arizona and New Mexico. Now limited to a small area of these.

Genl. Char. Nose darker, head and legs more reddish than *C. canadensis*, but paler than *C. c. occidentalis*. Nasals broader and flatter; upper molar series heavier and more curved. Antlers similar to those of *C. canadensis* but tines straighter.

Color. Summer Pelage. Head above reddish chestnut brown, paler on crown and sides; top of neck, back, and sides grizzled yellowish brown shading into pale dingy yellowish on flanks; rump patch dingy yellowish white bordered on lower edge with seal brown; under side of neck and body dark brown; legs dark reddish brown, paler on sides.

Winter Pelage. Body above, beneath, and on sides pale yellowish brown; head and neck seal brown, pale around eyes; ears whitish at base, liver brown on outer side; inner side of legs dark seal brown, outer side cinnamon rufous.

Measurements. Skull: occiput to front of premaxillæ, 498; palatal length, 288; length of nasals, 183; breadth of nasals, 83; orbital breadth, 194; breadth of premaxillæ, 99; zygomatic breadth, 203.

91. *Cervus nannodes* Merriam.

Cervus nannodes Merr., Proc. Biol. Soc. Wash., XVIII, 1905, p. 23. SAN JOAQUIN VALLEY ELK.

Type locality. Buttonwillow, Kern County, California.

Genl. Char. Size small; legs short; color pale; rump patch small; skull comparatively different from that of *C. canadensis*.

Color. Head and shoulders grizzled grayish brown; back grizzled whitish buffy; sides pale fulvous; rump patch and tail soiled whitish; anterior portion of legs bright golden fulvous, posterior portion buffy fulvous; mane grizzled grayish brown; thigh stripe faint; ears buffy ochraceous to ochraceous fulvous; the inside, borders, and outer base buffy white.

Measurements. "Type (two-year-old male). Total length, 2030; tail vertebræ, 140; hind foot, 620. Skull: basilar length, 358; zygomatic breadth, 155; occipito-sphenoid length, 79; palatal length, 230; palatal floor of premaxillaries, 82."

Genus 41. *Odontocælus*. Deer.

Odocoileus (*sic*) Rafin., Atlantic Journ., 1, 1832, No. 3, p. 109, fig. Type *Odocoileus! speleus* Rafin. = *Cervus dama americanus?* Erxl.

Mazama H. Smith, Griff. Anim. Kingd., v, 1827, p. 314. (nec Rafin.)

Dorcelaphus Glog., Hand- u. Hilfsb. Naturg., 1841, pp. xxxiii, 140.

Cariacus Less., Nouv. Tab. Règn. Anim., 1842, p. 173.

Oplacerus Haldeman, Proc. Acad. Nat. Scien. Phil., 1, 1842, p. 188.

Reduncina Wagn., Schreb. Säugth., Suppl., iv, 1844, p. 373, Taf. ccxlvii H.

Macrotis Wagn., Schreb. Säugth., Suppl., v, 1855, p. 368-372.

Eucervus Gray, Ann. Mag. Nat. Hist., 3d Ser., xviii, 1866, p. 338.

Otelaphus Fitzin., Sitzungsab. Math.-Nat. Cl. K. Akad. Wiss. Wien, lxxviii, Abth. 1, 1874, p. 356.

Gymnotis Fitzin., Sitzungsab. Math.-Nat. Cl. K. Akad. Wiss. Wien, lxxviii, Heft 11, Abth. 1, 1879, p. 343.

92. *Odontocælus americanus* (Erxleben).

Cervus dama americanus Erxl., Syst. Regn. Anim., 1777, p. 312.

Cervus virginianus Bodd., Elench. Anim., 1, 1785, p. 136.

Odocoileus! americanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 39, pl. xv. Zool. Ser.

VIRGINIAN WHITE-TAILED DEER.

Type locality. Virginia.

Geogr. Distr. Eastern North America from New York to Florida; west to the Missouri River, excepting possibly Louisiana.

a. Odontocælus americanus borealis Miller.

Odocoileus! americanus borealis Miller, Bull. N. Y. State Museum, 1900, p. 83.

NORTHERN WHITE-TAILED DEER.

Type locality. Bucksport, Maine.

Geogr. Distr. Canadian zone, northern New York, New England, and southeastern Canada.

Genl. Char. Size large; lower tooth row 85 mm. in length. Winter pelage different from that of Summer.

Color. Like that of *O. americanus*.

b. Odontocælus americanus macrourus (Rafinesque).

Cervus macrourus Rafin., Amer. Month. Mag., 1817, p. 436.

Cervus leucurus Dougl., Zool. Journ., iv, 1829, p. 330.

Odocoileus! americanus macrourus Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 39. Zool. Ser.

RAFINESQUE'S WHITE-TAILED DEER.

Type locality. Plains of the Kansas River, Upper Mississippi Valley.

Geogr. Distr. Kansas, Nebraska, and the Dakotas westward to California, Oregon, and Washington.

c. Odontocælus americanus osceola (Bangs).

Cariacus osceola Bangs, Proc. Biol. Soc. Wash., ix, 1896, p. 26.

Odocoileus! americanus osceola Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 40. Zool. Ser.

OSCEOLA'S WHITE-TAILED DEER.

Type locality. Citronelle, Citrus County, Florida.

Geogr. Distr. Florida.

d. Odontocælus americanus louisianæ (Allen).

Odocoileus! virginianus louisianæ G. M. Allen, Amer. Nat., xxxv, 1901, p. 449.

LOUISIANA WHITE-TAILED DEER.

Type locality. Mer Rouge, Morehouse County, Louisiana.

Geogr. Distr. Louisiana. Range undetermined.

Genl. Char. "Size large; skull long, slender; lower tooth row long; antlers heavy, high; color in winter pale."

Color. Top and sides of head grizzled brownish black and white; usual black patch about nostrils and lower jaw; chin, upper part of throat, and orbital ring white; upper parts grayish buff and black; sides of belly, throat, and chest ochraceous buff; inner sides of limbs, axillæ, and thighs white; tail above like the back, beneath white; metatarsal gland small, surrounded by white hairs, and a brownish black border; ears outside grizzled black and white, inside white.

Measurements. Nose to end of tail, 1695-2072; tail, 220-285; hind foot, 375-490; ear from crown, 122-134.5.

e. Odontocælus americanus texensis (Mearns).

Dorcelaphus texanus Mearns, Proc. Biol. Soc. Wash., 1898, p. 23.

Odocoileus! americanus texensis Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., II, 1901, p. 40. Zoöl. Ser.

Odontocælus americanus texensis Elliot, Mamm. Middle Amer. &
W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 70, pls. xxix, xxx.
Zoöl. Ser.

TEXAN WHITE-TAILED DEER. *Venado* in Mexico for all deer.

Type locality. Fort Clark, Kinney County, Texas.

Geogr. Distr. Texas and northern Mexico.

f. Odontocælus americanus couesi (Rothrock Ms.)

Cariacus americanus var. *couesi* Rothrock, Ms. in Coues and Yar-
row., Wheeler's Geog. and Geol. Surv. West 100th Merid., v,
1875, p. 72.

Odocoileus! americanus couesi Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 40. Zoöl. Ser.

Odontocælus americanus couesi Elliot, Mamm. Middle Amer. &
W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 70, fig. xxiii.
Zoöl. Ser.

COUES' WHITE-TAILED DEER.

Type locality. Camp Crittenden, Pima County, Arizona.

Geogr. Distr. Arizona, southwestern end of New Mexico, and
State of Sonora to City of Mexico.

93. *Odontocælus battyi* Allen.

Odocoileus! battyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903,
p. 591.

Odontocælus battyi Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 71. Zoöl. Ser.

BATTY'S WHITE-TAILED DEER.

Type locality. Rancho Santuario, State of Durango, Mexico.

Geogr. Distr. State of Durango; range unknown.

94. *Odontocælus lichtensteini* (Allen).

Cervus mexicanus Lichtenstein, Darst. Thiere, 1827, p. 34, pl.
xviii. (nec Gmelin.)

Dama lichtensteini Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902,
p. 20.

Odontocælus lichtensteini Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 72. Zoöl. Ser.

LICHTENSTEIN'S OR MEXICAN WHITE-TAILED DEER.

Type locality. Unknown.

Geogr. Distr. Southern Mexico; range unknown.

95. *Odontocælus rothschildi* (Thomas).

Dama rothschildi Thomas, Novitat. Zool., IX, 1902, p. 136.

Odontocælus rothschildi Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 72. Zoöl. Ser.

ROTHSCHILD'S WHITE-TAILED DEER.

Type locality. Coiba Island, off west coast of Panama.

Geogr. Distr. Apparently restricted to Coiba Island.

96. *Odontocælus truii* Merriam.

Odocoileus! clavatus True, Proc. U. S. Nat. Mus., 1888, p. 417.

(nec H. Smith.)

Odocoileus! truei Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 103.

(Footnote.)

Odontocælus truii Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 73. Zoöl. Ser.

TRUE'S WHITE-TAILED DEER.

Type locality. Segovia River, Honduras.

Geogr. Distr. Honduras, Central America; range unknown.

97. *Odontocælus costaricensis* Miller.

Odocoileus! costaricensis Miller, Proc. Biol. Soc. Wash., XIV, 1901,

p. 35.

Odontocælus costaricensis Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 73. Zoöl. Ser.

COSTA RICA WHITE-TAILED DEER.

Type locality. Talamanca, eastern side of Costa Rica, and the foot of the Cordilleras.

Geogr. Distr. Known only from Costa Rica.

98. *Odontocælus nemoralis* (H. Smith).

Cervus nemoralis H. Smith, Griff. Anim. Kingd., IV, 1827, p. 137.

Odontocælus nemoralis Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 74. Zoöl. Ser.

HAMILTON SMITH'S WHITE-TAILED DEER.

Type locality. "Virginia"?

Geogr. Distr. Honduras to Panama, Central America.

99. *Odontocælus toltecus* (Saussure).

Cervus toltecus Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 247.

Cervus yucatanensis Hays, Ann. Lyc. N. Y., X, 1874, p. 218.

Cervus acapulcensis Caton, Antel. & Deer Amer., 1877, p. 113.

Odontocælus toltecus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 74. Zoöl. Ser.

YUCATAN WHITE-TAILED DEER.

Type locality. Near Orizaba, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz to Yucatan, southeastern Mexico.

100. *Odontocælus thomasi* Merriam.

Odocoileus! thomasi Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 102.

Odontocælus thomasi Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 75. Zoöl. Ser.

THOMAS' WHITE-TAILED DEER.

Type locality. Huehuetan, State of Chiapas, Mexico.

Geogr. Distr. States of Oaxaca and Chiapas, Mexico. Range unknown.

101. *Odontocælus nelsoni* Merriam.

Odocoileus! nelsoni Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 103.

Odontocælus nelsoni Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 75. Zoöl. Ser.

NELSON'S WHITE-TAILED DEER.

Type locality. San Christobal, highlands of State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

102. *Odontocælus cerrosensis* Merriam.

Odocoileus! cerrosensis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 101.

Odontocælus cerrosensis Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 76. Zoöl. Ser.

CERROS ISLAND WHITE-TAILED DEER.

Type locality. Cerros or Cedros Island, off coast of Lower California, Mexico.

Geogr. Distr. Type locality only.

103. *Odontocælus sinaloæ* Allen.

Odocoileus! sinaloæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 613.

Odontocælus sinaloæ Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 78. Zoöl. Ser.

SINALOA WHITE-TAILED DEER.

Type locality. Escuinapa, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico; limits of range unknown.

104. *Odontocælus crooki* (Mearns.)

Dorcelaphus crooki Mearns, Proc. U. S. Nat. Mus., 1897, p. 468.

Odocoileus! crooki Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 41. Zoöl. Ser.

CROOK'S BLACK-TAILED DEER.

Type locality. Dog Mountains, Grant County, New Mexico.

Geogr. Distr. New Mexico, extent of range unknown.

105. *Odontocælus columbianus* (Richardson).

Cervus macrotis var. *columbiana* Rich., Faun. Bor. Amer., 1829, p. 257.

Cervus lewisii Peale, U. S. Expl. Exped., Mamm., VIII, 1848, p. 39, fig. p. 43.

Cervus richardsoni Aud. & Bach., Quad. N. Amer., III, 1853, p. 27, pl. CVI.

Cariacus punctulatus Gray, Proc. Zool. Soc., 1850, p. 239, pl. 28.

Odocoileus! columbianus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 41. Zool. Ser.

COLUMBIAN BLACK-TAILED DEER.

Type locality. Mouth of the Columbia River.

Geogr. Distr. British Columbia, Vancouver Island, and west of the Cascade Mountains in Washington, Oregon, and California.

a. *Odontocælus columbianus sitkensis* Merriam.

Odocoileus! columbianus sitkensis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 100. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 42. Zool. Ser.

SITKA BLACK-TAILED DEER.

Type locality. Sitka, Alaska.

Geogr. Distr. Alaska, limits of range unknown.

b. *Odontocælus columbianus scaphiotus* Merriam.

Odocoileus! columbianus scaphiotus Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 101. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 42. Zool. Ser.

BLACK-TAILED DEER.

Type locality. Laguna Ranch, Gabilan Range, Riverside County, California.

Geogr. Distr. Gabilan Range, California; limits of dispersion unknown.

106. *Odontocælus hemionus* (Rafinesque).

Cervus hemionus Rafin., Amer. Month. Mag., I, 1817, p. 436.

Cervus auritus Ward., Desc. États Unis, v, 1820, p. 540.

Cervus macrotis Say, Narr. Long's Exped. Rocky Mts., II, 1823, p. 88.

Odocoileus! hemionus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 42. Zool. Ser.

Odontocælus hemionus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 76. Zoöl. Ser.

MULE DEER.

Type locality. "Sioux River," probably on eastern border of South Dakota.

Geogr. Distr. West of Missouri River from Fort George south to Texas, westward through Nevada to latitude of San Francisco, including North and South Dakota, Nebraska, Kansas, Texas, Colorado, Wyoming, Montana, Idaho, California, Oregon, and Washington; Lower California, Mexico.

a. *Odontocælus hemionus virgultus* (Hallock).

Cariacus virgultus Hallock, Forest and Stream, 27th May, 1899,
p. 404.

MINNESOTA MULE DEER.

Type locality. Minnesota.

Geogr. Distr. Northeastern Minnesota and northwestern Manitoba, Rainy River, Lake of the Woods, Red Lake, and Roseau Region.

Genl. Char. Tail short, thick, uniform throughout its length. Antlers small, allied to *O. hemionus*.

Color. Body dark gray sprinkled with long black and white hairs; rump light gray; forehead black; face and throat light gray; breast and belly jet black; tail white on basal half, black on remainder; hocks tawny.

Measurements. Male. Height of shoulders, three feet five inches; nose to end of tail, five feet; girth of body, four feet; around neck, two feet. Antlers smaller than those of the Mule Deer.

b. *Odontocælus hemionus californicus* (Caton).

Cervus macrotis var. *californicus* Caton, Amer. Nat., x, 1876, p. 464.

Odocoileus! hemionus californicus Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., II, 1901, p. 43. Zoöl. Ser.

Odontocælus hemionus californicus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 77. Zoöl. Ser.

CALIFORNIA MULE DEER.

Type locality. St. Julian Ranch, summit of Gaviota Pass, Coast Range, forty miles from Santa Barbara, California.

Geogr. Distr. In the Coast Range south of San Francisco into Lower California, Mexico.

c. *Odontocælus hemionus eremicus* (Mearns).

Dorcelaphus hemionus eremicus Mearns, Proc. U. S. Nat. Mus.,
XX, 1897, p. 470.

Odontocælus hemionus eremicus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 77. Zoöl. Ser.

DESERT MULE DEER:

Type locality. Sierra Seri, near the Gulf of California, State of Sonora, Mexico.

Geogr. Distr. Lower California and State of Sonora, Mexico. Limits of range unknown.

d. *Odontocælus hemionus canus* Merriam.

Odocoileus? hemionus canus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 560.

Odontocælus hemionus canus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 78. Zoöl. Ser.

CHIHUAHUA MULE DEER.

Type locality. Sierra en Media, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, limits of range unknown.

e. *Odontocælus hemionus peninsulæ* (Lydekker).

Mazama hemionus peninsulæ Lydekk., Proc. Zoöl. Soc., 1897, pp. 899-900.

Odontocælus hemionus peninsulæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 78. Zoöl. Ser.

LOWER CALIFORNIA MULE DEER.

Type locality. La Paz, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California.

Genus 42. *Hippocamelus*. The Brockets.

Hippocamelus Leuckart, Dissert. Inaug. de *Equo bisulco* Molinæ, 1816, p. 24. Type *Equus bisulcus* Molina = *Hippocamelus dubius* Leuckart.

Mazama Rafin., Amer. Month. Mag., I, 1817, p. 363.

107. *Hippocamelus sartori* (Saussure).

Cervus sartorii Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 252.

Mazama sartori Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 80, fig. xxiv, pl. xxxi. Zoöl. Ser.

SARTORI'S BROCKET. *Cabra del Monte* in Costa Rica.

Type locality. Mirador, State of Vera Cruz, Mexico.

Geogr. Distr. Southern Mexico and Central America.

108. Hippocamelus pandora (Merriam).

Mazama pandora Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 105.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 80. Zoöl. Ser.

TUNKAS BROCKET.

Type locality. Tunkas, Yucatan, Mexico.

Geogr. Distr. State of Campeche, and Yucatan, Mexico.

Family III. **Antilocapridæ. Prong-horn Antelopes.**Genus 43. **Antilocapra.**

Antilocapra Ord, Journ. de Phys., 1818, p. 149. Type *Antilope americana* Ord.

**Dicranocerus!* H. Smith, Griff. Anim. Kingd., iv, 1827, p. 169.

109. Antilocapra americana (Ord).

Antilope americana Ord, Guth. Geog., 2d Am. ed., ii, 1815, p. 292, desc. p. 308.

Antilocapra americana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 43, pl. xvi. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 82. Zoöl. Ser.

PRONG-HORN ANTELOPE.

Type locality. Plains east of the Missouri? Black Mountains?

Geogr. Distr. Valley of the Saskatchewan, latitude 53°, south to Mexico, and from the Missouri River on the plains, westward to the Rocky Mountains and the Cascade Range in Oregon and Washington.

a. Antilocapra americana mexicana Merriam.

Antilocapra americana mexicana Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 31. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 82, fig. xxv, pls. xxxii, xxxiii. Zoöl. Ser.

MEXICAN PRONG-HORN. *Berendo* in Mexico.

Type locality. Sierra en Media, State of Chihuahua, Mexico.

Geogr. Distr. Northern Mexico, in States of Sonora, Chihuahua, and Tamaulipas; Lower California.

*διεμνους, two-headed, + κέρας, horn, = *Dicranoceras*.

Family IV. **Bovidae. Oxen, Sheep, Goats.**Subfamily I. **Rupicaprinæ.**Genus 44. **Oreamnus. Goats.**

Oreamnos! Rafn., Amer. Month. Mag., 11, 1817, p. 44. Type

Ovis montanus Ord.

Aplocerus (sic) H. Smith, Griff. Anim. Kingd., v, 1827, p. 354.

110. Oreamnus montanus (Ord).

Ovis montanus Ord, Guth. Geogr., 2d Amer. ed., 11, 1815, p. 292.

Oreamnus montanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

11, 1901, p. 44, pls. XVII, XVIII, XIX, XX. Zool. Ser.

MOUNTAIN GOAT.

Type locality. Cascade Range near Brant Island, Columbia River, Oregon.

Geogr. Distr. High elevations in Rocky Mountains and other ranges between them and the Pacific, to southern British Columbia. Not found on the Olympic Mountains, Washington.

a. Oreamnus montanus columbianus Allen.

Oreamnos! montanus columbianus Allen, Bull. Am. Mus. Nat. Hist.

N. Y., 1904, p. 20.

COLUMBIAN MOUNTAIN GOAT.

Type locality. Shesley Mountains, northern British Columbia.

Genl. Char. Size large, skull narrow.

Color. White.

Measurements. Femur to humerus, 914; height at shoulder, 1088. Skull: occipito-nasal length, 336; Hensel, 293; zygomatic breadth, 119; interorbital width, 98; width of maxillary region above second upper molar, 87; nasals, 122 x 38; palatal length, 184; length of upper tooth row, 77; ratio of interorbital breadth to basal length, 35; hoof, outer digit on fore foot, 74 x 35; outer digit on hind foot, 66 x 33.

b. Oreamnus montanus missoulæ Allen.

Oreamnos! montanus missoulæ Allen, Bull. Am. Mus. Nat. Hist.

N. Y., 1904, p. 20.

MISSOULA MOUNTAIN GOAT.

Type locality. Missoula, Montana.

Genl. Char. Size small; skull narrow.

Color. White.

Measurements. Skull: occipito-nasal length, 299; zygomatic breadth, 108; interorbital width, 87; width of intermaxillary region

above second upper molar, 81; nasals, 104 x 33; length of upper tooth row, 69; hoof, at outer digit of fore foot, 56 x 28; at outer digit of hind foot, 52 x 26.

111. *Oreamnus kennedyi* Elliot.

Oreamnus kennedyi Elliot, Pub. Field Columb. Mus., III, 1900, p. 3. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 44, pls. XVII, XVIII, XIX, XX.

KENNEDY'S MOUNTAIN GOAT.

Type locality. Mountains at the mouth of Copper River, opposite Kyak Island, Alaska.

Geogr. Distr. Coast mountains of Alaska from Copper River to vicinity of Knik near Cook's Inlet.

Genus 45. *Ovis*. Sheep.

Ovis Linn., Syst. Nat., I, 1758, p. 70; I, 1766, p. 97. Type *Ovis aries* Linnæus.

112. *Ovis cervina* Desmarest.

Ovis cervina Desm., Nouv. Dict. Hist. Nat., 1804, p. 5; nouv. ed., 1818, XXI, p. 553. Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 46, pl. XXI. Zoöl. Ser.

Ovis canadensis Shaw, Nat. Misc., 1804? pl. 610.

Ovis ammon Mitch., Med. Rep., 1807, p. 35. (nec Linn.)

Ovis pygargus H. Smith, Griff. Anim. Kingd., v, 1827, p. 318.

Ovis californianus Dougl., Zoöl. Journ., 1828, p. 332.

MOUNTAIN SHEEP.

Type locality. Rocky Mountains between the Kootenai Pass and Mount Mead, N. lat. 50°, W. long. 115, Alberta, Canada.

Geogr. Distr. High mountain ranges from the Colorado River and Arizona north into British Columbia.

a. **Ovis cervina auduboni* (Merriam).

Ovis canadensis auduboni Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 31.

Ovis cervina auduboni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 484. Zoöl. Ser.

AUDUBON'S MOUNTAIN SHEEP.

Type locality. "Upper Missouri."

Geogr. Distr. Unknown.

*Very doubtfully separable from *O. cervina*.

b. Ovis cervina nelsoni (Merriam).*Ovis nelsoni* Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 217.*Ovis cervina nelsoni* Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 46. Zoöl. Ser.

NELSON'S MOUNTAIN SHEEP.

Type locality. Grapevine Mountains, boundary line of Nevada and California.*Geogr. Distr.* Mountains of southeastern California.*c. Ovis cervina cremnobates* Elliot.*Ovis cervina cremnobates* Elliot, Pub. Field Columb. Mus., III, 1903, p. 239. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 84, figs. xxvi, xxvii. Zoöl. Ser.

LOWER CALIFORNIA MOUNTAIN SHEEP.

Type locality. Mattomi, San Pedro Martir Mountains, Lower California, Mexico.*Geogr. Distr.* San Pedro Martir Range, and probably also the Laguna Mountains, Lower California, Mexico.*d. Ovis cervina mexicanus* (Merriam).*Ovis mexicanus* Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 30.*Ovis cervina mexicanus* Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 86, pls. xxxiv, xxxv. Zoöl. Ser.

MEXICAN MOUNTAIN SHEEP.

Type locality. Mountains about Lake Santa Maria, State of Chihuahua.*Geogr. Distr.* Sierra Madre and Guadalupe Mountains of northern Mexico. Limits of range unknown.113. *Ovis stonii* Allen.*Ovis stonei* Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 111, pls. II, III. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 47. Zoöl. Ser.*Ovis canadensis liardensis* Lydekk., Wild Oxen, Sheep & Goats, 1898, p. 215.

STONE'S SHEEP.

Type locality. Che-on-nee Mountains, Coast Range, British Northwest Territory.*Geogr. Distr.* From the Cassiar Mountains 61° north latitude and south to the head waters of the Nelson and Peace Rivers, Rocky Mountains; west to longitude 134°. Also found in the Stickeen, Cheonnees, and Etsazas Mountains, Alaska.

114. *Ovis dalli (Nelson).

Ovis montana dalli Nelson, Proc. U. S. Nat. Mus., 1884, p. 12.

Ovis dalli Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 47. Zoöl. Ser.

DALL'S MOUNTAIN SHEEP.

Type locality. Fort Reliance, Upper Yukon River, Alaska.

Geogr. Distr. Alaskan Mountains, to near the Arctic coast west of the Mackenzie River, and south possibly to north latitude 60° and westward to Kotzebue Sound.

a. *Ovis dalli kenaiensis Allen.

Ovis dalli kenaiensis Allen, Bull. Am. Mus. Nat. Hist., 1902, p. 145.

KENAI MOUNTAIN SHEEP.

Type locality. Kenai Peninsula, Alaska.

Geogr. Distr. Limits of range unknown. Probably not restricted to the Kenai Peninsula.

Genl. Char. Color white. Skull: posterior nares short; teeth broad and short; tooth rows convex outwardly; palate broad; upper side of tail white.

Color. White.

Measurements. Skull: base of postoccipital process to third upper molar, 84; posterior nares, 58-60.

115. *Ovis fannini Hornaday.

Ovis fannini Hornaday, Rep. N. Y. Zoöl. Soc., 1901, Append. I,

p. 2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 425. Zoöl. Ser.

FANNIN'S MOUNTAIN SHEEP.

Type locality. Rocky Mountains east side of the Yukon about seventy-five miles east of Dawson, Yukon, N. W. Territory.

Geogr. Distr. In the mountains above named, but the extent of range unknown.

Genus 46. Ovibos. Musk Oxen.

Ovibos De Blainv., Bull. Soc. Philom. Paris, 1816, p. 76. Type *Bos moschatus* Zimmermann.

116. Ovibos moschatus (Zimmermann).

Bos moschatus Zimm., Geog. Geschichte, II, 1780, p. 86.

Ovibos pallantis H. Smith, Griff. Anim. Kingd., IV, 1827, p. 375.

*The relative specific standing of these sheep is not yet satisfactorily established.

Bos pallasi De Kay, Ann. N. Y. Lyc. Nat. Hist., II, 1828, p. 29.
(nec Baer.)

Bos canaliculatus Fisch., Mém. Acad. Mosc., III, 1834, p. 287.

Ovibos moschatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 48, pl. xxii. Zoöl. Ser.

MUSK OX.

Type locality. Churchill River, Kewatin, Canada.

Geogr. Distr. Arctic America north of 60th parallel from Mackenzie River to region of Hudson Bay.

a. *Ovibos moschatus wardi* Lydekker.

Ovibos moschatus wardi Lydekk., Nature, LXIII, 1900, p. 157.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl.
p. 485. Zoöl. Ser.

WARD'S MUSK OX.

Type locality. East Greenland.

Geogr. Distr. "Southern border of Ellesmere Land northward through Grinnell Land to the Polar Sea, and on the Greenland coast from about latitude 78°, on the western side northward to and around the northern end of Greenland to about latitude 75° N. on the east coast."

b. *Ovibos moschatus niphæcus* Elliot.

Ovibos moschatus niphæcus Elliot, Proc. Biol. Soc. Wash., XVIII,
1905, p. 35.

BLACK MUSK OX.

Type locality. About 600 miles north of Hudson Bay

Genl. Char. In color intermediate between *O. moschatus* and *O. m. wardi*; cranial characters different.

Color. Type, bull in prime of life. A narrow whitish band between ears, behind the bases of horns, and a small brown saddle on middle of back; rest of head, neck, and body jet black. Fore legs grayish in front, black behind, changing into grayish white above the hoofs; hind legs black in front, becoming gray above hoof; grayish on sides and hinder part. Long black hairs on body covering the legs to the knees. Nose and lips and chin grayish white; ears black.

The young bull, female, and calves resemble the type in their jet black hue and in the varying color of the legs. The old bull is of a dark brown hue, becoming black upon the flanks, but no white whatever showing anywhere. The old cow is of the same general color as the aged bull, but has a little white upon the sides of the nose.

Measurements. Skull: total length, 430 mm.; occipito-nasal length, 355; greatest breadth across orbits, 245; length of nasals, median, 121; greatest width posteriorly, 64; anterior width (at tips), 13; zygomatic width, 168; palatal arch to end of premaxillæ, 249; greatest width of palatal floor between fourth premolars, 76; length of horn core from edge on top of head to tip, 230; length of upper tooth row, alveolar border outer side, 140; posterior width of basi-occipital, 62; anterior width in front of bullæ, 32; length of mandible, 345; length of lower tooth row, alveolar border outer side, 145.

Genus 47. **Bison. Bison, American Buffalo.**

Bison H. Smith, Griff. Anim. Kingd., v, 1827, p. 373. Type *Bos bison* Linnæus.

117. Bison bison (Linnæus).

Bos bison Linn., Syst. Nat., I, 1758, p. 72.

Bison americanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 49, pl. XXIII. Zoöl. Ser.

Bison bison Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 486. Zoöl. Ser.

BISON. AMERICAN BUFFALO.

Type locality. Texas.

Geogr. Distr. Practically extinct in the wild state; a few survive in the National Park, and some are said to be in the Pan Handle of Texas.

a. Bison bison athabascæ Rhoads.

Bison bison athabascæ Rhoads, Proc. Acad. Nat. Scien. Phil., 1897, p. 498. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 486. Zoöl. Ser.

Bison americanus athabascæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 49. Zoöl. Ser.

WOOD BISON.

Type locality. Fifty miles southwest of Fort Resolution, Great Slave Lake, Mackenzie, Canada.

Geogr. Distr. "Wooded uplands of Northwest Territories. Formerly from the east slope of the Rocky Mountains to the 95th meridian, and from latitude 63° to latitude 55°; probably south along the Rocky Mountains to the United States."

Family V. **Tapiridae. Tapirs.**Genus 48. **Tapirella.**

Tapirella Palmer, Science, N. Ser., xvii, 1903, p. 873.

Elasmognathus Gill, Proc. Acad. Nat. Scien. Phil., 1865, p. 183.
(nec Fieber, Hemiptera.) Type *Elasmognathus bairdii* Gill.

118. Tapirella bairdi (Gill).

Elasmognathus bairdii Gill, Proc. Acad. Scien. Phil., 1865, p. 183.

Tapirella bairdi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., iv, Pt. 1, 1904, p. 87, pls. xxxvi, xxxvii. (Name on
plate misprinted *Tapirella dowi*.) Zoöl. Ser.

BAIRD'S TAPIR.

Type locality. Isthmus of Panama.

Geogr. Distr. Southern Mexico to Panama, Central America.

119. Tapirella dowi (Gill).

Elasmognathus dowii Gill, Amer. Journ. Scien. Arts, L, 1870, p. 142.

Tapirella dowi Elliot, Mamm. Middle Amer. & W. Indies, F. C.
M. Pub., iv, Pt. 1, 1904, p. 88, fig. xxviii. Zoöl. Ser.

DOW'S TAPIR.

Type locality. Guatemala.

Geogr. Distr. Guatemala and Nicaragua, Central America.

Order VI. **Rodentia. Rodents.**

Family I. **Sciuridæ. Squirrels, Marmots, etc.**

Subfamily I. **Sciurinaë.**

Genus 49. **Synthetosciurus.**

Syntheosciurus (*sic*) Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 25.

Type *Syntheosciurus! brochus* Bangs.

120. **Synthetosciurus brochus** Bangs.

Syntheosciurus! brochus Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 25.

Synthetosciurus brochus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 91, fig. 12. Zool. Ser.

PROJECTING-TEETH SQUIRREL.

Type Locality. Boquete, Chiriqui, Panama. Altitude, 7,000 feet.

Geogr. Distr. Panama, Central America.

Genus 50. **Sciurus. Tree Squirrels.**

Sciurus Linn., Syst. Nat., 1, 1758, p. 63. Type *Sciurus vulgaris* Linnæus.

Guerlinguetus Gray, Lond. Med. Rep., xv, 1821, p. 304.

Macroxus F. Cuv., Dent's des Mamm., 1823, p. 162, pl. 56.

Rhinosciurus Gray, List Spec. Mamm. Brit. Mus., 1843, pp. xxv, 195. *Id.* Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 286.

Rheithrosciurus (*sic*) Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 272.

Neosciurus Treuss., Le Nat., II, 1880, p. 292.

Parasciurus Treuss., Le Nat., II, 1880, p. 292.

Echinosciurus Treuss., Le Nat., II, 1880, p. 292.

Tamiasciurus Treuss., Le Nat., II, 1880, p. 292.

Microsciurus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 332.

Hesperosciurus Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 27.

Otosciurus Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 28.

Aræosciurus Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 29.

Baiosciurus Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 31.

Subgenus A. *Microsciurus*.**121. *Sciurus alfari* Allen.**

Sciurus alfari Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 333. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 99. Zoöl. Ser.

ALFARO'S PIGMY SQUIRREL.

Type locality. Jimenez, Costa Rica, Central America.

Geogr. Distr. Northern, eastern, and southwestern Costa Rica.

122. *Sciurus browni* Bangs.

Sciurus browni Bangs, Bull. Mus. Comp. Zoöl., xxxix, 1902, p. 24. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 100, fig. 13. Zoöl. Ser.

BROWN'S PIGMY SQUIRREL.

Type Locality. Bogava, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

123. *Sciurus boquetensis* Nelson.

Sciurus boquetensis Nelson, Proc. Biol. Soc. Wash., xvi, 1903, p. 121. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 100. Zoöl. Ser.

CHIRIQUI PIGMY SQUIRREL.

Type locality. Boquete, Chiriqui, Panama. Altitude, 6,000 feet.

Geogr. Distr. Panama, Central America.

Subgenus B. *Baiosciurus*.**124. *Sciurus deppii* Peters.**

Sciurus deppei Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1863, p. 654.

Sciurus tephrogaster Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 431.

Sciurus griseogena Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 429.

Sciurus taniurus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 431.

Sciurus deppii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 101, fig. 14. Zoöl. Ser.

DEPPE'S SQUIRREL.

Type locality. Papantla, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz from Papantla on east coast to Isthmus of Tehuantepec, Mexico, and into Guatemala, Central America. Altitude, 6,000-9,000 feet.

a. Sciurus deppii vivax Nelson.

Sciurus deppii vivax Nelson, Proc. Biol. Soc. Wash., xiv, 1901, p. 131.

Sciurus deppii vivax Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 102. Zool. Ser.

APAZOTE SQUIRREL.

Type locality. Apazote, State of Campeche, Mexico.

Geogr. Distr. Lowland forest in the States of eastern Tabasco, southern Campeche, and southern and eastern Yucatan, Mexico.

125. *Sciurus negligens* Nelson.

Sciurus negligens Nelson, Proc. Biol. Soc. Wash., xii, 1898, p. 147. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 102. Zool. Ser.

Sciurus arizonensis Alston, Biol. Centr. Amer., Mamm., 1, 1880, p. 125. (Part.)

Sciurus deppii Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 222. (Part.)

LITTLE GRAY SQUIRREL.

Type locality. Alta Mira, State of Tamaulipas, Mexico.

Geogr. Distr. Southern Tamaulipas, through eastern San Luis Potosi into northern Vera Cruz, Mexico.

Subgenus C. *Guerlinguetus*.

Sciurus æstuans hoffmanni Peters.

Sciurus æstuans var. *hoffmanni* Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, 1863, p. 654. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 104, fig. 15. Zool. Ser.

Sciurus xanthotus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 429.

Sciurus griseogena Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 430. (Part. Costa Rica.)

Sciurus rufoniger Allen, Mon. N. Am. Rod., 1877, pp. 757-763. (Part. Costa Rica.)

Sciurus griseogenys Alston, Proc. Zool. Soc., 1878, p. 667. (Part. Costa Rica, Veragua, Panama.)

HOFFMANN'S SQUIRREL.

Type locality. Costa Rica, Central America.

Geogr. Distr. Costa Rica south to upper Cauca River, Columbia.

Sciurus æstuans chiriquensis Bangs.

Sciurus æstuans chiriquensis Bangs, Bull. Mus. Comp. Zool.,
xxxix, 1902, p. 22. Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 104. Zool. Ser.

CHIRIQUI SQUIRREL.

Type locality. Divala, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

126. *Sciurus richmondi* Nelson.

Sciurus richmondi Nelson, Proc. Biol. Soc. Wash., xii, 1898, p.
146. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., iv, Pt. 1, 1904, p. 105. Zool. Ser.

RICHMOND'S SQUIRREL.

Type locality. Escondido River, fifty miles above Bluefields,
Nicaragua.

Geogr. Distr. Tropical lowland forests along the Escondido River,
Nicaragua.

Sciurus variabilis morulus Bangs.

Sciurus variabilis morulus Bangs, Proc. N. Eng. Zool. Club, ii,
1900, p. 43. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., iv, Pt. 1, 1904, p. 105. Zool. Ser.

Sciurus variabilis True, Proc. U. S. Nat. Mus., vii, 1884, p. 596.

LION HILL SQUIRREL.

Type locality. Loma del Leon, Panama.

Geogr. Distr. Panama, Central America.

Subgenus D. *Aræosciurus*.**127. *Sciurus oculus* Peters.**

Sciurus oculus Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin,
1863, p. 653. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., iv, Pt. 1, 1904, p. 107. Zool. Ser.

Sciurus capistratus Licht., Abh. K. Akad. Wiss., 1827, p. 116.
(nec Bosc.)

Sciurus carolinensis Sauss., Rev. Mag. Zool. 2me Sér., xiii, 1861,
p. 4. (nec Gmel.)

Sciurus hypopyrrhus Allen, Bull. U. S. Geol. Surv. Terr., iv,
1878, p. 881. (Part.)

Sciurus niger melanonotus Thomas, Proc. Zool. Soc., 1890, p. 73,
pl. vi.

BLACK-BACKED SQUIRREL.

Type locality. Las Vigas? State of Vera Cruz, Mexico.

Geogr. Distr. Northwestward through States of Vera Cruz, Hidalgo, Queretaro to southeastern San Luis Potosi, Mexico. Altitude, 6,000 to 12,000 feet.

a. Sciurus oculatus tolucae Nelson.

Sciurus oculatus tolucae Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 148. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 107. Zool. Ser.

TOLUCA SQUIRREL.

Type locality. North slope of the Volcano of Toluca, State of Mexico, Mexico.

Geogr. Distr. Sierra Madre from Toluca Volcano, State of Mexico, to border of the State of Michoacan; southern and western parts of State of Queretaro; central and eastern parts of State of Guanajuato, and southern part of State of San Luis Potosi, Mexico.

128. *Sciurus alleni* Nelson.

Sciurus alleni Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 147. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 108. Zool. Ser.

Sciurus carolinensis? Baird, N. Am. Mamm., 1857, p. 263.

Sciurus carolinensis var. *carolinensis* Allen, Mon. N. Am. Rod., 1877, p. 706.

Sciurus carolinensis Alston, Proc. Zool. Soc., 1878, p. 658.

Sciurus arizonensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 222. (Part.)

ALLEN'S SQUIRREL.

Type locality. Monterey, State of Nuevo Leon, Mexico.

Geogr. Distr. From Monterey, State of Nuevo Leon, into State of Tamaulipas, Mexico. Altitude, 2,000-8,500 feet.

129. *Sciurus nayaritensis* Allen.

Sciurus nayaritensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. VII, footnote, and p. 185. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 108, fig. 16. Zool. Ser.

Sciurus alstoni Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1889, p. 167. (nec Anderson.)

NAYARIT SQUIRREL.

Type locality. Sierra de Valparaiso, State of Zacatecas, Mexico.

Geogr. Distr. States of Jalisco and Zacatecas, Mexico.

130. *Sciurus arizonensis* Coues.

Sciurus arizonensis Coues, Amer. Nat., I, 1867, p. 357. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 59, fig. 14.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies., F. C. M. Pub., IV, Pt. 1, 1904, p. 109. Zoöl. Ser.

Sciurus collæi Allen, Mon. N. Am. Rod., 1877, p. 738. (nec Rich.)
ARIZONA GRAY SQUIRREL.

Type locality. Fort Whipple, Yavapai County, Arizona.

Geogr. Distr. State of Nuevo Leon, Mexico (San Pedro Mines, Allen), to Arizona. Texas?

a. Sciurus arizonensis huachuca Allen.

Sciurus arizonensis huachuca Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 349. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 60. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 109. Zoöl. Ser.

HUACHUCA SQUIRREL.

Type locality. Huachuca Mountains, southern Arizona.

Geogr. Distr. Huachuca Mountains, Arizona, into State of Sonora, Mexico.

131. *Sciurus apache* Allen.

Sciurus apache Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 29. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 58. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 110. Zoöl. Ser.

Sciurus griseoflavus Thomas, Proc. Zoöl. Soc., 1882, p. 372. (nec Gray.)

Sciurus niger ludovicianus Thomas, Proc. Zoöl. Soc., 1890, p. 73 (footnote).

APACHE SQUIRREL.

Type locality. Mountains of northwestern Chihuahua, Mexico.

Geogr. Distr. Sierra Madre in States of western Durango, northwestern Chihuahua, eastern Sonora, and northeastern Sinaloa, Mexico; also in Chiricahua Mountains, southern Arizona.

Subgenus E. *Parasciurus*.

132. *Sciurus rufiventer* E. Geoffroy.

Sciurus rufiventer E. Geoff., Cat. Mamm. Mus. Hist. Nat. Paris, 1803, p. 176. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 167.

Sciurus ludovicianus Custis, Bart. Med. & Phys. Journ., II, Pt. II, 1806, p. 47. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 52. Zoöl. Ser.

Sciurus macroura Say, Long's Exped. Rocky Mountains, I, 1823, p. 115. (Kansas.)

Sciurus magnicaudatus Harlan, Faun. Amer., 1825, p. 178.

Sciurus subauratus Bachm., Proc. Zool. Soc., 1838, p. 87.

Sciurus auduboni Bachm., Proc. Zool. Soc., 1838, p. 97.

Sciurus occidentalis Aud. & Bachm., Journ. Acad. Nat. Scien. Phila., VIII, 1842, p. 317.

Sciurus sayi Aud. & Bachm., Quad. N. Amer., II, 1851, p. 274, pl. LXXXIX.

FOX SQUIRREL.

Type locality. Red River of Louisiana?

Geogr. Distr. Mississippi Valley from Louisiana to South Dakota and Michigan; and from the western Alleghanies to eastern border of the plains.

a. *Sciurus rufiventer texensis* (Bachman).

Sciurus texianus! Bach., Proc. Zool. Soc., 1838, p. 86.

Sciurus ludovicianus limitis Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 331. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 53. Zool. Ser.

Sciurus rufiventer texianus! Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 167.

Sciurus rufiventer texensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 110, fig. 17. Zool. Ser.

TEXAS FOX SQUIRREL.

Type locality. Devil's River, Valverde County, Texas.

Geogr. Distr. Texas and adjacent parts of the States of Nuevo Leon and Coahuila, Mexico.

b. *Sciurus rufiventer neglectus* (Gray).

Macroxus neglectus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 425.

Sciurus vulpinus Schreb., Säugth., IV., 1792, p. 772. (nec Gmel.)

Sciurus cinereus Le Conte, App. McMurt., Cuv. Règn. Anim., 1831, p. 433.

Sciurus ludovicianus vicinus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 150. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 52. Zool. Ser.

Sciurus ludovicianus neglectus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 426. Zool. Ser.

Sciurus rufiventer neglectus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 22.

EASTERN FOX SQUIRREL.

Type locality. Wilmington, Delaware.

Geogr. Distr. Formerly from northern Virginia to southern New England; now from mountains of West Virginia northward into western Pennsylvania.

133. *Sciurus niger* Linnaeus.

Sciurus niger Linn., Syst. Nat., I, 1758, p. 64. Elliot, Syn. N. Am.

Mamm., F. C. M. Pub., II, 1901, p. 51, fig. 10. Zool. Ser.

Sciurus cinereus Linn., Syst. Nat., I, 1758, p. 64. (Part.)

Sciurus vulpinus Gmel., Syst. Nat., I, 1788, p. 147.

Sciurus capistratus Bosc., Ann. Mus. Paris, I, 1808, p. 281.

BLACK FOX SQUIRREL.

Type locality. South Carolina?

Geogr. Distr. Virginia to Florida east of the Alleghanies; and on the coast of the Gulf of Mexico to Louisiana.

Subgenus F. *Otosciurus*.

134. *Sciurus aberti* Woodhouse.

Sciurus aberti Woodh., Proc. Acad. Nat. Scien. Phil., 1852, p.

220. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 57, fig. 13. Zool. Ser.

Sciurus dorsalis Woodh., Proc. Acad. Nat. Scien. Phil., 1852, p.

110. (nec Gray.)

ABERT'S SQUIRREL.

Type locality. San Francisco Mountains, Coconino County, Arizona.

Geogr. Distr. New Mexico, Arizona, and mountains of Colorado.

a. *Sciurus aberti mimus* Merriam.

Sciurus aberti mimus Merr., Proc. Biol. Soc. Wash., XVII, 1904,

p. 130.

MIMIC SQUIRREL.

Type locality. Hall Peak, Cimarron Mountains, New Mexico.

Genl. Char. Similar to *S. aberti*, but paler on upper parts, and red dorsal area nearly obsolete; tail paler; ear tufts pale fulvous.

Measurements. Total length, 485; tail vertebræ, 215; hind foot, 70.

b. *Sciurus aberti ferreus* True.

Sciurus aberti concolor True, Proc. U. S. Nat. Mus., 1894, p. 241.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 57.

Zool. Ser.

Sciurus aberti ferreus True, Proc. Biol. Soc. Wash., XIII, 1900,

p. 183.

PLAIN-BACKED SQUIRREL.

Type locality. Loveland, Larimer County, Colorado.

Geogr. Distr. Northeastern Colorado.

135. *Sciurus kaibabensis* Merriam.

Sciurus kaibabensis Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 129.

KAIBAB SQUIRREL.

Type locality. Bright Angel Creek, Kaibab Plateau, Grand Cañon of the Colorado, Arizona.

Genl. Char. Similar to *S. aberti*, but black beneath, and tail all white.

Color. Entire upper parts grizzled gray; dorsal region ferruginous; lower sides, upper part of arms, and thighs black; under parts on middle of body black; tail with base gray; rest white, with a median buffy gray streak and black subterminal bands above; ears in summer blackish; gray with black tips in winter; hands mixed gray and black; hind feet gray in summer, black in winter.

136. *Sciurus durangi* (Thomas).

Sciurus aberti durangi Thomas, Ann. Mag. Nat. Hist., 6th Ser., xi, 1893, p. 49. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 112, fig. 18. Zoöl. Ser.

Sciurus aberti Thomas, Proc. Zoöl. Soc., 1882, p. 372. (nec Woodhouse.)

DURANGO SQUIRREL.

Type locality. Cuidad Ranch (100 miles west of Durango City), State of Durango, Mexico.

Geogr. Distr. Sierra Madre, west parts of States of Durango and Chihuahua, Mexico.

a. *Sciurus durangi phæurus* Allen.

Sciurus durangi phæurus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 205. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 11, 1904, Appendix, p. 741. Zoöl. Ser.

LA CIENAGA SQUIRREL.

Type locality. La Cienaga, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico. Limits of range unknown.

137. *Sciurus barberi* (Allen).

Sciurus aberti barberi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 207.

Sciurus barberi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 11, 1904, Appendix, p. 741. Zoöl. Ser.

BARBER'S SQUIRREL.

Type locality. Colonia Garcia, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico. Limits of range unknown.

Subgenus G. *Echinosciurus*.

138. *Sciurus aureigaster* F. Cuvier.

Sciurus aureigaster F. Cuv., Hist. Nat. Mamm., VI, 1829, Livr.

LIX, pl. Text. Gray, Ann. Mag. Nat. Hist., 3d Ser., XX, 1867, p. 423.

Sciurus niger Erxl., Syst. Regn. Anim., 1777, p. 417. (nec Linn.)

Sciurus variegatus Desm., Nouv. Dict. Hist. Nat., X, 1817, pp. 103-104. (nec Erxleben, 1777.)

Sciurus rufiventer Licht., Abh. K. Ak. Wiss. Berl., (1827), 1830, p. 116.

Sciurus leucogaster F. Cuv., Suppl. Hist. Nat. Buffon, I, 1831, pp. 300-301.

Sciurus mustelinus Aud. & Bach., Proc. Acad. Nat. Scien. Phil., 1841, p. 100.

Sciurus ferruginiventris! Aud. & Bach., Proc. Acad. Nat. Scien. Phil., 1841, p. 101.

Sciurus aurogaster! Aud. & Bach., Quad. N. Am., III, 1851, p. 344.

Sciurus hypoxanthus I. Geoff., Voy. de la Vénus, Zool., 1855, p. 158.

Sciurus hypopyrrhus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 222. (nec Wagl.)

Sciurus leucops Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 198.

Sciurus aureigaster Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 115, figs. 19, XXIX. Zool. Ser.

GOLDEN-BELLIED SQUIRREL. *Ardilla* in Mexico.

Type locality. Eastern Mexico.

Geogr. Distr. Eastern Mexico from southern part of State of Tamaulipas to northern side of Isthmus of Tehuantepec, through State of Vera Cruz, eastern San Luis Potosi, Queretaro, Puebla, and northeastern Hidalgo and northern Oaxaca, up to 4,000 and 8,000 feet.

a. *Sciurus aureigaster hypopyrrhus* (Wagler).

Sciurus hypopyrrhus Wagl., Isis, 1831, p. 510.

Macroxus morio Gray, Ann. Mag. Nat. Hist., 3d Ser., XX, 1867, p. 424.

Macroxus maurus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 425.

Sciurus variegatus Sumichrast, La Naturaleza, v, 1882, p. 324.

Sciurus rufiventris Rovirosa, La Naturaleza, vii, 1887, p. 360.

Sciurus aureogaster Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 181. (nec Cuvier.)

Sciurus aureigaster hypopyrrhus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 116. Zoöl. Ser.

FIRE-BELLIED SQUIRREL.

Type locality. State of Vera Cruz, Mexico.

Geogr. Distr. Southern part of the State of Vera Cruz and States of Oaxaca, Tabasco, and Chiapas, Mexico.

b. *Sciurus aureigaster frumentor* Nelson.

Sciurus aureogaster frumentor Nelson, Proc. Biol. Soc. Wash., xii, 1898, p. 154.

Sciurus aureigaster frumentor Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 117. Zoöl. Ser.

PEROTE SQUIRREL.

Type locality. Las Vigas, State of Vera Cruz, Mexico.

Geogr. Distr. "East and north base of the Cape de Perote, and eastern slope of the Cordillera near Las Vigas, State of Vera Cruz, Mexico, in pine and oak forests, at 6,000-8,000 feet."

139. *Sciurus poliopus* (Fitzinger).

Sciurus albipes Wagn., Abhandl. Math.-Phys. Cl. K. Bayer Akad. Wiss. München, ii, 1837, pp. 501-506. (nec Kerr.)

Sciurus varius Wagn., Schreb. Säugth., Suppl., iii, 1843, p. 168.

Sciurus variegatus poliopus Fitz., Sitzung. K. Akad. Wiss. Wien, i, 1867, p. 478.

Sciurus variegatus rufipes Fitz., Sitzung. K. Akad. Wiss. Wien, i, 1867, p. 478.

Macroxus leucops Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 427.

Sciurus variegatus Alston, Proc. Zoöl. Soc., 1878, p. 660.

Sciurus wagneri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 453.

Sciurus poliopus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 117. Zoöl. Ser.

OAXACA SQUIRREL.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico.

Geogr. Distr. Mountains about Valley of Oaxaca, except those on the west, at 7,500-11,000 feet altitude.

a. *Sciurus poliopus hernandezi* (Nelson).

Sciurus albipes hernandezi Nelson, Science, VIII, 1898, p. 783.

Sciurus albipes quercinus Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 150. (nec Erxl.)

Sciurus wagneri quercinus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 453.

Sciurus poliopus hernandezi Nelson, Proc. Wash. Acad. Scien., I, 1899, p. 48. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 118. Zool. Ser.

OAK WOODS SQUIRREL.

Type locality. Mountains 15 miles west of the city of Oaxaca, State of Oaxaca, Mexico.

Geogr. Distr. Mountains west of Oaxaca Valley into southern part of the State of Puebla and southeastern portion of State of Guerrero, Mexico. Altitude, 8,000-9,000 feet.

b. *Sciurus poliopus peregrinator* Nelson.

Sciurus poliopus peregrinator Nelson, Proc. Biol. Soc. Wash., XVII, 1904, p. 149.

PUEBLA SQUIRREL.

Type locality. Piaxtla, State of Puebla.

Geogr. Distr. Southern part of State of Puebla, northwestern portion of State of Oaxaca and adjacent parts of State of Guerrero.

Genl. Char. Like *S. p. hernandezi*, but brighter.

Color. Top of nose and fore part of crown iron gray; back part of crown and nape dark ochraceous buffy and black; rest of upper parts light iron gray mixed with ochraceous; sides of body paler; rump patch mixed with black; top of feet white; under parts of body cream buff; tail above black washed with white, bottom of hairs rusty ochraceous, beneath ochraceous bordered with black and edged with white.

Measurements. Total length, 535; tail vertebrae, 273; hind foot, 69.

c. *Sciurus poliopus nemoralis* (Nelson).

Sciurus albipes nemoralis Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 151.

Sciurus wagneri nemoralis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 454.

Sciurus poliopus nemoralis Nelson, Proc. Wash. Acad. Scien., I, 1899, p. 50. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 118. Zool. Ser.

MICHOACAN SQUIRREL.

Type locality. Patzcuaro, State of Michoacan, Mexico.

Geogr. Distr. Volcano of Toluca, State of Mexico, to Nahuatzin, State of Michoacan, Mexico. Altitude 7,000-12,000 feet.

d. Sciurus poliopus senex Nelson.

Sciurus poliopus senex Nelson, Proc. Biol. Soc. Wash., xvii, 1904, p. 148.

LA SALADA SQUIRREL.

Type locality. La Salada, 40 miles south of Uruapan, southern part of the State of Michoacan, Mexico.

Geogr. Distr. Valley of the Balsas River, below 4,000 feet; in central and southern part of the State of Michoacan and adjacent parts of the State of Guerrero, Mexico.

Genl. Char. Like *S. p. nemoralis*, but paler; nuchal patch more yellowish; rump patch less distinct; rostrum heavier; braincase narrower, more constricted posteriorly.

Color. Top of head iron gray; nape ochraceous and black mixed; rest of back pale grizzled gray; sides of body paler, under parts white; tail above black washed with white, beneath dull gray bordered with blackish, and edged with white; top of feet white.

Measurements. Total length, 543; tail vertebræ, 275; hind foot, 69.

e. Sciurus poliopus cervicalis (Allen).

Sciurus leucops Allen, Mon. N. Am. Rod., 1877, p. 753. (nec Gray.)

Sciurus variegatus Alston, Biol. Centr. Amer., Mamm., 1, 1880, p. 127. (nec Erxl.)

Sciurus aureogaster leucops Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1889, p. 166.

Sciurus cervicalis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 183.

Sciurus wagneri cervicalis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 454.

Sciurus poliopus cervicalis Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 51. Elliot, Mamm. Middle Amer. & W. Indies. F. C. M. Pub., iv Pt. 1, 1904, p. 119. Zool. Ser.

COLIMA MOUNTAIN SQUIRREL.

Type locality. Hacienda San Marcos, Tonila, State of Jalisco, at east base of Sierra Nevada de Colima, Mexico.

Geogr. Distr. From the Sierra Nevada de Colima, along the high mountains north to Ameca, State of Jalisco, and east into the western part of the State of Michoacan, Mexico. Altitude, 6,000 to 12,000 feet, and down occasionally to 4,000 feet.

f. Sciurus poliopus colimensis (Nelson).

Sciurus albipes colimensis Nelson, Proc. Biol. Soc. Wash., xii, 1898, p. 152.

Sciurus poliopus colimensis Nelson, Proc. Wash. Acad. Scien.,
1, 1899, p. 52. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 119. Zoöl. Ser.

Sciurus leucops Allen, N. Am. Rod., 1877, p. 753. (Part.)

Sciurus albipes colimensis Nelson, Proc. Biol. Soc. Wash., XII,
1898, p. 152.

Sciurus wagneri colimensis Allen, Bull. Am. Mus. Nat. Hist.,
1898, p. 454.

COLIMA SQUIRREL.

Type locality. Hacienda Magdalena, State of Colima, Mexico.

Geogr. Distr. Coast region of the State of Colima, Mexico.

g. *Sciurus poliopus effugius* (Nelson).

Sciurus albipes effugius Nelson, Proc. Biol. Soc. Wash., XII, 1898,
p. 152.

Sciurus poliopus effugius Nelson, Proc. Wash. Acad. Scien., 1,
1899, p. 54. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 120. Zoöl. Ser.

Sciurus wagneri effugius Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1898, p. 454.

GUERRERO SQUIRREL.

Type locality. Mountains west of Chilpancingo, State of Guerrero, Mexico. Altitude, 7,500-9,500 feet.

Geogr. Distr. Forests of Cordillera, State of Guerrero, Mexico.

140. *Sciurus nelsoni* Merriam.

Sciurus nelsoni Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 144.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub.,
IV, Pt. 1, 1904, p. 120. Zoöl. Ser.

NELSON'S SQUIRREL.

Type locality. Huitzilac, State of Morelos, Mexico.

Geogr. Distr. Mountains south and west of the Valley of Mexico
and south of Valley of Toluca, in the States of Mexico and
Morelos.

a. *Sciurus nelsoni hirtus* Nelson.

Sciurus nelsoni hirtus Nelson, Proc. Biol. Soc. Wash., XII, 1898,
p. 153. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. 1, 1904, p. 121. Zoöl. Ser.

MOUNTAIN SQUIRREL.

Type locality. Tochmilco, State of Puebla, Mexico.

Geogr. Distr. Mounts Popocatepetl and Iztaccihuatl, Mexico.
Altitude, 8,000-12,000 feet, in States of Mexico, Puebla and Morelos.

141. *Sciurus colliæi* Richardson.

Sciurus colliæi Rich., Voy. Blossom, Zool., 1839, p. 8. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 121. Zool. Ser.

Sciurus hypopyrrhus Alston, Proc. Zool. Soc., 1878, p. 662. (Part.)

COLLIE'S SQUIRREL.

Type locality. San Blas, Territorio de Tepic, Mexico.

Geogr. Distr. From northern border of Territorio de Tepic to Bay of Banderas, State of Jalisco, Mexico, below 2,500 feet.

a. *Sciurus colliæi nuchalis* Nelson.

Sciurus colliæi nuchalis Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 59. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 122. Zool. Ser.

MANZANILLO SQUIRREL.

Type locality. Manzanillo, State of Colima, Mexico.

Geogr. Distr. From State of Michoacan to Bay of Banderas, State of Jalisco, and inland to mountains near San Sebastian in the same state, below 3,000 feet.

142. *Sciurus sinaloensis* Nelson.

Sciurus sinaloensis Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 60. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 122. Zool. Ser.

SINALOA SQUIRREL.

Type locality. Mazatlan, State of Sinaloa, Mexico.

Geogr. Distr. Southern and central parts of the State of Sinaloa, Mexico, below 2,500 feet.

143. *Sciurus truei* Nelson.

Sciurus truei Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 61.

Sciurus truei Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 123. Zool. Ser.

TRUE'S SQUIRREL.

Type locality. Camoa, Rio Mayo, State of Sonora, Mexico.

Geogr. Distr. Southwestern part of the State of Sonora, and northern portion of the State of Sinaloa, Mexico.

144. *Sciurus socialis* Wagner.

Sciurus socialis Wagn., Abh. Math.-Phys. Cl. K. Bayer Akad. Wiss. München, 11, 1837, pp. 501-7, pl. v. Elliot, Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 123. Zool. Ser.

Sciurus aureigaster Allen, Mon. N. Am. Rod., 1877, p. 750. (Part.)

Sciurus leucops Allen, Mon. N. Am. Rod., 1877, p. 753. (Part.)

Sciurus variegatus Alston, Proc. Zool. Soc., 1878, p. 660. (Part.)

TEHUANTEPEC SQUIRREL.

Type locality. Near Tehuantepec City, State of Oaxaca, Mexico.

Geogr. Distr. Puerto Angel, State of Oaxaca, South to Tonalá and Tuxtla, State of Chiapas, Mexico, and up the river valley to Newton, Guatemala, below 3,000 feet.

a. *Sciurus socialis cocos* Nelson.

Sciurus socialis cocos Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 155. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 124.

Sciurus aureogaster I. Geoff., Voy. Vénus, Zool., Atlas, 1846, pl. 10. (nec Cuvier.)

ACAPULCO SQUIRREL.

Type locality. Acapulco, State of Guerrero, Mexico.

Geogr. Distr. From Acapulco, State of Guerrero, to Jamiltepec, State of Oaxaca, Mexico, below 1,500 feet.

145. *Sciurus griseiflavus* (Gray).

Macroxus griseoflavus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 427.

Sciurus ludovicianus Tomes, Proc. Zool. Soc., 1861, p. 281. (nec Custis.)

Sciurus aureigaster Allen, Mon. N. Am. Rod., 1877, p. 750. (Part.)

Sciurus affinis Alston, Proc. Zool. Soc., 1878, p. 660.

Sciurus griseiflavus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 124. Zool. Ser.

GUATEMALA SQUIRREL.

Type locality. Guatemala.

Geogr. Distr. Southeastern part of the State of Chiapas, Mexico, and northwestern Guatemala. Altitude, 7,000-10,000 feet.

a. *Sciurus griseiflavus chiapensis* Nelson.

Sciurus griseoflavus chiapensis Nelson, Proc. Wash. Acad. Scien., I, 1899, p. 69.

Sciurus griseiflavus chiapensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 125. Zool. Ser.

CHIAPAS SQUIRREL.

Type locality. San Cristobal, State of Chiapas, Mexico.

Geogr. Distr. Mountains of central portion of State of Chiapas, Mexico. Altitude, 7,500-9,500 feet.

146. *Sciurus yucatanensis* (Allen).

Sciurus carolinensis yucatanensis Allen, Mon. N. Am. Rod., 1877, p. 705.

Sciurus yucatanensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 5. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 125. Zoöl. Ser.

Sciurus carolinensis Alston, Proc. Zoöl. Soc., 1878, p. 658.

YUCATAN SQUIRREL.

Type locality. Merida, Yucatan, Mexico.

Geogr. Distr. Peninsula of Yucatan, Mexico.

a. *Sciurus yucatanensis baliolus* Nelson.

Sciurus yucatanensis baliolus Nelson, Proc. Biol. Soc. Wash., XIV, 1901, p. 131. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 126. Zoöl. Ser.

SWARTHY SQUIRREL.

Type locality. Apazote, State of Campeche, Mexico.

Geogr. Distr. Southern part of the State of Campeche, and eastern part of the State of Tabasco, Mexico.

147. *Sciurus thomasi* Nelson.

Sciurus thomasi Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 71. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 126. Zoöl. Ser.

Sciurus boothiae Allen, Mon. N. Am. Rod., 1877, pp. 741-746. (Part. Costa Rica.) (nec Gray.)

Sciurus hypopyrrhus Alston, Proc. Zoöl. Soc., 1878, pp. 662-664. (Part. Costa Rica.)

THOMAS' SQUIRREL.

Type locality. Talamanca, Costa Rica.

Geogr. Distr. "Humid tropical forests of eastern Costa Rica."

148. *Sciurus adolphii* (Lesson).

Macroxus adolpheii Less., Nouv. Tabl. Règn. Anim., Mamm., 1842, p. 112.

Sciurus boothiae Allen, Mon. N. Am. Rod., 1879, p. 741. (Part. Nicaragua.)

Sciurus hypopyrrhus Alston, Biol. Centr. Amer., 1, Mamm., 1880, p. 128.

Sciurus adolpheii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 126. Zoöl. Ser.

NICARAGUA SQUIRREL.

Type locality. Realejo, Nicaragua.

Geogr. Distr. Lowlands on the west coast of Nicaragua.

a. *Sciurus adolphei dorsalis* (Gray).

Sciurus dorsalis Gray, Proc. Zool. Soc., 1848, p. 138.

Sciurus rigidus Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, 1863, p. 652.

Sciurus intermedius Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 421.

Sciurus nicoyana Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 423.

Sciurus boothiæ Allen, Mon. N. Am. Rod., 1877, p. 741. (Part. West Costa Rica specimens.)

Sciurus hypopyrrhus Allen, Mon. N. Am. Rod., 1877, p. 746. (Part. West Costa Rica specimens.)

Sciurus adolphei dorsalis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 127. Zool. Ser.

BANDED-BACK SQUIRREL.

Type locality. Liberia, Costa Rica, nec Caracas, Venezuela.

Geogr. Distr. Western Costa Rica, Alajuela to Liberia, Peninsula of Nicoya, and possibly adjacent parts of Nicaragua.

149. *Sciurus melania* (Gray).

Macroxus melania Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 425.

Sciurus melania Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 128. Zool. Ser.

GRAY'S BLACK SQUIRREL.

Type locality. Point Burica, Costa Rica.

Geogr. Distr. Costa Rica, Chiriqui, Panama. Altitude, 2,000 feet.

150. *Sciurus boothiæ* Gray.

Sciurus boothiæ Gray, List Spec. Mamm. Brit. Mus., 1843, p. 139.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 128. Zool. Ser.

Sciurus richardsoni Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 264. (nec Bachman.)

Sciurus fuscovariegatus Schinz., Syst. Mamm., II, 1845, p. 15.

Sciurus hypopyrrhus Alston, Proc. Zool. Soc., 1878, p. 662. (Part. Honduras specimens.)

HONDURAS SQUIRREL.

Type locality. Honduras, San Pedro Sula?

Geogr. Distr. Humid coast forests of northern Honduras and border of Guatemala.

a. Sciurus boothia belti Nelson.

Sciurus boothia belti Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 78. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 128. Zoöl. Ser.

ESCONDIDO RIVER SQUIRREL.

Type locality. Escondido River, fifty miles above Bluefields, Nicaragua.

Geogr. Distr. East coast region of Nicaragua, and north to Segovia River, Honduras.

151. *Sciurus variegatoides* Ogilby.

Sciurus variegatoides Ogilby, Proc. Zoöl. Soc., 1839, p. 117. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 129. Zoöl. Ser.

Sciurus pyladei Less., Nouv. Tabl. Règn. Anim., Mamm., 1842, p. 112.

Sciurus griseocaudatus Gray, Voy. 'Sulphur,' Mamm., II, 1843, p. 34, pl. 13, fig. 2, pl. 18, figs. 7-12.

Sciurus colliæi Gray, Ann. Mag. Nat. Hist., 3d Ser., XX, 1867, p. 746. (Part. var. 1.)

Sciurus hypopyrrhus Allen, Mon. N. Am. Rod., 1877, pp. 746-750. (Part. Salvador specimens.)

VARIEGATED SQUIRREL.

Type locality. Salvador, west coast of Central America.

Geogr. Distr. Tropical forests of Salvador, west coast of Central America.

152. *Sciurus managuensis* (Nelson).

Sciurus boothia managuensis Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 150.

Sciurus managuensis Nelson, Proc. Wash. Acad. Scien., 1, 1899, p. 81. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 129. Zoöl. Ser.

RIO MANAGUA SQUIRREL.

Type locality. Managua River, Guatemala.

Geogr. Distr. Northern Guatemala, along the Managua River.

153. *Sciurus goldmani* Nelson.

Sciurus goldmani Nelson, Proc. Biol. Soc. Wash., XII, 1898, p. 149. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 130. Zoöl. Ser.

GOLDMAN'S SQUIRREL.

Type locality. Huehuetan, State of Chiapas, Mexico.

Geogr. Distr. Southeastern part of the State of Chiapas, Mexico, into Guatemala.

Subgenus H. *Hesperosciurus*.**154. *Sciurus griseus* Ord.**

Sciurus griseus Ord, Guth. Geogr., 2d Am. ed., II, 1815, p. 292, mss. annot. author's copy. *Id.* Journ. Phys., LXXXVII, 1818, p. 150. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 55, fig. 12. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 130, fig. 20. Zoöl. Ser.

Sciurus fessor Peale, U. S. Expl. Exped., Mamm. and Birds, 1848, p. 55.

Sciurus heermanni Le Conte, Proc. Acad. Nat. Scien. Phil., 1852, p. 149.

Sciurus leporinus Hensh., Ann. Rep. Engin., 1876, p. 25.

Sciurus fessor anthonyi Mearns, Proc. U. S. Nat. Mus., XX, 1898, p. 501.

Sciurus griseus anthonyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 57.

CALIFORNIA GRAY SQUIRREL.

Type locality. The Dalles, Columbia River, Wasco County, Oregon.

Geogr. Distr. Northern California, Oregon, and Washington.

a. Sciurus griseus nigripes (Bryant.)

Sciurus fessor nigripes Bryant, Proc. Calif. Acad. Scien., 1889, p. 25.

Sciurus griseus nigripes Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 56. Zoöl. Ser.

BLACKFOOTED GRAY SQUIRREL.

Type locality. San Mateo County, California, south of San Francisco.

Geogr. Distr. Red Wood Belt, coast region of California, south of San Francisco.

Subgenus I. *Neosciurus*.**155. *Sciurus carolinensis* Gmelin.**

Sciurus carolinensis Gmel., Syst. Nat., I, 1788, p. 148. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 53, fig. 11. Zoöl. Ser.

CAROLINA GRAY SQUIRREL.

Type locality. Carolina.

Geogr. Distr. Eastern United States from Southern New York to northern Florida, and westward south of Pennsylvania to Missouri, Indian Territory, and to edge of the plains.

a. *Sciurus carolinensis leucotis* (Gapper).

Sciurus leucotis Gapper, Zoöl. Journ., v, 1830, p. 206.

Sciurus cinereus Schreb., Säugth, IV, 1792, p. 766, pl. CCXCII.
(nec Linn.)

?**Sciurus pennsylvanicus* Ord, Guth. Geogr., 2d Am. ed., II, 1815,
p. 292.

Sciurus hiemalis Ord, Guth. Geogr., 2d Am. ed., II, 1815, p. 292.

Sciurus niger Godman, Am. Nat. Hist., II, 1826, p. 133. (nec
Linn.)

Sciurus vulpinus DeKay, Zoöl. N. Y., I, 1842, p. 59. (nec Gmel.,
nec Schreb.)

Sciurus migratorius Aud. & Bachm., Quad. N. Am., I, 1849, p. 265,
pl. XXXV.

Sciurus carolinensis leucotis Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 53. Zoöl. Ser.

WHITE-EARED GRAY SQUIRREL.

Type locality. Region between York and Lake Simcoe, Ontario,
Canada.

Geogr. Distr. Alleghany Mountains in Pennsylvania north through
New York and New England to southern New Brunswick and southern
Canada, west to Minnesota.

b. *Sciurus carolinensis hypophæus* Merriam.

Sciurus carolinensis hypophæus Merr., Scien., VIII, 1886, p. 351.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 54.
Zoöl. Ser.

MINNESOTA GRAY SQUIRREL.

Type locality. Elk River, Sherburne County, Minnesota.

Geogr. Distr. Minnesota forest belt. Range unknown.

c. *Sciurus carolinensis fuliginosus* (Bachman).

Sciurus fuliginosus Bachm., Proc. Zoöl. Soc., 1838, p. 97.

Sciurus carolinensis fuliginosus Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., II, 1901, p. 55. Zoöl. Ser.

DUSKY GRAY SQUIRREL.

Type locality. Near New Orleans, Louisiana.

Geogr. Distr. Coast region of Louisiana.

**Sciurus pennsylvanicus* Ord, if it could be proved to have been applied
to the northern form of the gray squirrel would have fifteen years precedence
over *leucotis* Gapper, and that name would necessarily become a synonym.
But as Ord's name is without description, and therefore a *nomen nudum*, it
cannot be determined whether he intended to apply it to the southern or
northern form of gray squirrel.

d. Sciurus carolinensis extimus Bangs. .

Sciurus carolinensis extimus Bangs, Proc. Biol. Soc. Wash., x,
1896, p. 158. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 55. Zoöl. Ser.

FLORIDA GRAY SQUIRREL.

Type locality. Miami, Dade County, Florida.

Geogr. Distr. South Florida.

Subgenus J. *Tamiasciurus*.**156. *Sciurus hudsonius* (Erxleben).**

Sciurus vulgaris hudsonicus Exrl., Syst. Reg. Anim., Mamm.,
1777, p. 416.

Sciurus hudsonius Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 60, fig. 15. Zoöl. Ser.

HUDSON BAY CHICKAREE.

Type locality. Hudson Strait.

Geogr. Distr. Boreal North America, Labrador, west to Rocky Mountains and Alaska.

a. Sciurus hudsonius gymnicus (Bangs).

Sciurus hudsonicus gymnicus Bangs, Proc. N. Eng. Zoöl. Club,
I, 1899, p. 28.

Sciurus hudsonius gymnicus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 61. Zoöl. Ser.

EASTERN CHICKAREE.

Type locality. Greenville, Maine.

Geogr. Distr. Eastern North America, south of Labrador to northern New York, through Canada to northern Michigan and northern Minnesota.

b. Sciurus hudsonius loquax (Bangs).

Sciurus hudsonicus loquax Bangs, Proc. Biol. Soc. Wash., x,
1896, p. 161.

Sciurus carolinensis Ord, Guth. Geogr., 2d Am. ed., II, 1815,
p. 292. (nec Gmel.)

Sciurus hudsonius loquax Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 62. Zoöl. Ser.

NOISY CHICKAREE.

Type locality. Liberty Hill, New London County, Connecticut.

Geogr. Distr. Ontario to North Carolina in the east, and west to Minnesota.

c. *Sciurus hudsonius minnesota* (Allen).

Sciurus hudsonicus minnesota Allen, Amer. Nat., xxxiii, 1899, p. 640.

Sciurus hudsonius minnesota Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 62. Zoöl. Ser.

MINNESOTA CHICKAREE.

Type locality. Fort Snelling, Hennepin County, Minnesota.

Geogr. Distr. Southern Minnesota and Wisconsin, Iowa? eastward to northern Indiana.

d. *Sciurus hudsonius dakotensis* (Allen).

Sciurus hudsonicus dakotensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 325.

Sciurus hudsonius dakotensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 62. Zoöl. Ser.

SOUTH DAKOTA CHICKAREE.

Type locality. Squaw Creek, Black Hills, South Dakota.

Geogr. Distr. Black Hills of South Dakota and adjoining parts of Wyoming.

e. *Sciurus hudsonius baileyi* (Allen).

Sciurus hudsonicus baileyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 261.

Sciurus hudsonius baileyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 63. Zoöl. Ser.

BAILEY'S CHICKAREE.

Type locality. Big Horn Mountains, Wyoming. Altitude, 8,400 feet.

Geogr. Distr. Mountain ranges of Central Wyoming and eastern Montana, north into Alberta, in eastern foothills of the Rocky Mountains.

f. *Sciurus hudsonius ventorum* (Allen).

Sciurus hudsonicus ventorum Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 263.

Sciurus hudsonius ventorum Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 63. Zoöl. Ser.

WIND RIVER MOUNTAINS CHICKAREE.

Type locality. South Pass City, Fremont County, Wyoming.

Geogr. Distr. Wind River Mountains north to Mystic Lake, west to head of Snake River in Idaho, south to Wahsatch Range, north-eastern Utah.

g. *Sciurus hudsonius richardsoni* (Bachman).

Sciurus richardsonii Bach., Proc. Zool. Soc., 1838, p. 100.

Sciurus hudsonius richardsoni Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 64. Zool. Ser.

RICHARDSON'S CHICKAREE.

Type locality. Head of Big Lost River, Idaho.

Geogr. Distr. Western border of northern Montana, central and northern Idaho, northeastern Washington and Oregon, northward into British Columbia.

h. *Sciurus hudsonius streatori* (Allen).

Sciurus hudsonicus streatori Allen, Bull. Am. Mus. Nat. Hist. N.

Y., 1898, p. 267.

Sciurus hudsonius streatori Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 64. Zool. Ser.

STREATOR'S CHICKAREE.

Type locality. Ducks, British Columbia.

Geogr. Distr. Northern Washington from the Columbia River to central British Columbia.

i. *Sciurus hudsonius petulans* (Osgood).

Sciurus hudsonicus petulans Osgood, N. Am. Faun., No. 19, 1900, p. 27.

Sciurus hudsonius petulans Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, Append., p. 426. Zool. Ser.

SCOLDING CHICKAREE.

Type locality. Glacier, White Pass, Alaska. Altitude, 1,870 feet.

Geogr. Distr. Alaska, range unknown.

j. *Sciurus hudsonius vancouverensis* Allen.

Sciurus hudsonius vancouverensis Allen, Bull. Am. Mus. Nat. Hist.

N. Y., 1890, p. 165.

Sciurus hudsonius vancouverensis Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 64. Zool. Ser.

VANCOUVER ISLAND CHICKAREE.

Type locality. Duncan Station, Vancouver Island, British Columbia, Canada.

Geogr. Distr. Vancouver Island, British Columbia, north to Sitka, Alaska.

157. *Sciurus douglasii* Bachman.

Sciurus douglasii Bachm., Proc. Zool. Soc., 1838, p. 99. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 65. Zool. Ser.

Sciurus belcheri Gray, Ann. Mag. Nat. Hist., 1st Ser., 1842, p. 263.

Sciurus suckleyi Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 333.

DOUGLAS' CHICKAREE.

Type locality. Columbia River, Oregon.

Geogr. Distr. Coast region of Oregon and Washington from Cape Blanco to Puget Sound.

a. *Sciurus douglasi mollipilosus* (Audubon and Bachman).

Sciurus mollipilosus Aud. & Bachm., Proc. Acad. Nat. Scien. Phil., 1841, p. 42.

Sciurus douglasi mollipilosus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 65. Zoöl. Ser.

SOFT-FURRED CHICKAREE.

Type locality. Coast of northern California.

Geogr. Distr. Coast of northern California from Sonoma County into Curry County, Oregon.

b. *Sciurus douglasi cascadenensis* Allen.

Sciurus douglasii cascadenensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 277. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 66. Zoöl. Ser.

CASCADE MOUNTAINS CHICKAREE.

Type locality. Mt. Hood, Oregon.

Geogr. Distr. Cascade Mountains of Oregon and Washington, north into British Columbia. Also coast region from Fraser River to River's Inlet north of Vancouver Island.

c. *Sciurus douglasi albolimbatus* Allen.

Sciurus hudsonius californicus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 165.

Sciurus douglasi albolimbatus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 453. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 66. Zoöl. Ser.

CALIFORNIA CHICKAREE.

Type locality. Blue Cañon, Placer County, California.

Geogr. Distr. Sierra Nevada region of northern California and Oregon, east of the Cascades to the Maury Mountains and Strawberry Butte.

d. *Sciurus douglasi mearnsi* (Townsend).

Sciurus hudsonius mearnsi Town., Proc. Biol. Soc. Wash., XI, 1897, p. 146.

Sciurus douglasi mearnsi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 133, fig. 21. Zoöl. Ser.

MEARNS' CHICKAREE.

Type locality. San Pedro Martir Mountains, Lower California. Altitude, 7,000 feet.

Geogr. Distr. Forests of San Pedro Martir Mountains, Lower California. Altitude, 7,000 feet.

158. *Sciurus fremonti* Audubon and Bachman.

Sciurus fremonti Aud. & Bachm., Quad. N. Am., III, 1853, p. 237.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 66.

Zoöl. Ser.

FREMONT'S CHICKAREE.

Type locality. South Pass, Rocky Mountains, Park Region, Central Colorado.

Geogr. Distr. Mountains of Colorado and the Uintah Mountains, Utah, to the southern border of Wyoming.

a. *Sciurus fremonti mogollonensis* (Mearns).

Sciurus hudsonius mogollonensis Mearns, Bull. Am. Mus. Nat. Hist.

N. Y., 1887-90, p. 277.

Sciurus fremonti mogollonensis Elliot, Syn. N. Am. Mamm., F. C.

M. Pub., II, 1901, p. 67. Zoöl. Ser.

ARIZONA CHICKAREE.

Type locality. Quaking Asp Settlement, summit of Mogollon Mountains, Arizona.

Geogr. Distr. High Mountains and plateaus of central Arizona.

b. *Sciurus fremonti neomexicanus* Allen.

Sciurus fremonti neomexicanus Allen, Bull. Am. Mus. Nat. Hist.

N. Y., 1898, p. 291. Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 67. Zoöl. Ser.

TAOS CHICKAREE.

Type locality. Rayado Cañon, Colfax County, New Mexico.

Geogr. Distr. Taos Range, New Mexico.

c. *Sciurus fremonti lychnuchus* Stone and Rehn.

Sciurus fremonti lychnuchus Stone and Rehn, Proc. Acad. Nat.

Scien. Phil., 1903, p. 18.

RUIDOSO CHICKAREE.

Type locality. Forks of the Ruidoso (White Mountains), Lincoln County, New Mexico.

Geogr. Distr. New Mexico, range unknown.

Genl. Char. Similar to *S. f. neomexicanus*, but larger and more rufous; nasals longer.

Color. Above dull ferrugineous, deepest on rump; sides pale rufescent with ochraceous tinge; lateral line narrow, indistinct; head washed with blackish; orbital ring white; ear ferrugineous, tips blackish; arms rufescent, lateral fringe of hands white; legs dull fer-

rugineous, rufescent on upper surface of feet; tail above ferrugineous, fringed with ochraceous, end of tail black with the tips of hairs ochraceous, beneath pale grayish ochraceous fringed with ochraceous; under parts with inner surface of limbs white.

Measurements. Total length, 350; tail vertebræ, 140; hind foot, 55. Skull: total length, 50; basilar length, 42; zygomatic width, 29; length of nasals, 16; width of nasals, 8.2.

d. Sciurus fremonti grahamensis (Allen).

Sciurus hudsonicus grahamensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 350.

Sciurus fremonti grahamensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 67. Zool. Ser.

GRAHAM MOUNTAINS CHICKAREE.

Type locality. Graham Mountains, Graham County, Arizona.

Geogr. Distr. Graham Mountains, southeastern Arizona.

Genus 51. **Tamias.** Chipmunks.

Tamias Illig., Prodr. Syst. Mamm. et Aves, 1811, p. 83. Type *Sciurus striatus* Linnæus.

Tenotis Rafin., Am. Month. Mag., I, 1817, p. 362.

Tamia Less., Man. Mamm., 1827, p. 236.

Eutamias Trouess., Cat. Mamm. Viv. et Foss., Bull. Soc. Études Angers, x, 1880, pp. 86-87.

• Subgenus A. **Eutamias.**

159. **Tamias dorsalis** Baird.

Tamias dorsalis Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 332.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 68, fig. 16. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 135. Zool. Ser.

Tamias quadrivittatus pallidus Coues and Yarr., in Wheeler's Rep. Geogr. Expl. & Surv. West of 100th Merid., v, 1876, p. 118.

GILA CHIPMUNK.

Type locality. Fort Webster, Grant County, New Mexico.

Geogr. Distr. Northern Utah to northern Mexico; west to the Sierra Nevada, east to the Mimbres in New Mexico.

a. Tamias dorsalis utahensis (Merriam).

Eutamias dorsalis utahensis Merr., Proc. Biol. Soc. Wash., 1897, p. 210.

Tamias dorsalis utahensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 69. Zool. Ser.

UTAH CHIPMUNK.

Type locality. Ogden, Weber County, Utah.

Geogr. Distr. Northern Utah and northwestern Nevada through Arizona to New Mexico.

160. *Tamias canescens* (Allen).

Eutamias canescens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 208.

Tamias canescens Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 741. Zool. Ser.

GUANACEVI CHIPMUNK.

Type locality. Guanacevi, State of Durango, Mexico. Altitude, 8,000 feet.

Geogr. Distr. State of Durango, Mexico, range unknown.

161. *Tamias palmeri* (Merriam).

Eutamias palmeri Merr., Proc. Biol. Soc. Wash., 1897, p. 208.

Tamias palmeri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 69. Zool. Ser.

PALMER'S CHIPMUNK.

Type locality. Charleston Peak, Lincoln County, Nevada. Altitude, 8,000 feet.

Geogr. Distr. Restricted to type locality.

162. *Tamias townsendi* Bachman.

Tamias townsendii Bachm., Jour. Acad. Nat. Scien. Phil., 1839, p. 68. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 69. Zool. Ser.

Tamias cooperi Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 334.

TOWNSEND'S CHIPMUNK.

Type locality. Mouth of the Columbia River.

Geogr. Distr. Coast region of Oregon, Washington, and British Columbia, from the mouth of the Columbia River northward; east in northern Cascades to the head of Lake Chelan.

a. Tamias townsendi hindsi (Gray).

Tamias hindsi Gray, Ann. Mag. Nat. Hist. 1st Ser., X, 1842, p. 264.

Tamias townsendi hindsi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 70. Zool. Ser.

HIND'S CHIPMUNK.

Type locality. Nicasio? California.

Geogr. Distr. Coast of California from San Francisco north.

b. Tamias townsendi pricei (Allen).

Tamias pricei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 333.

Tamias townsendi pricei Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 70. Zoöl. Ser.

PRICE'S CHIPMUNK.

Type locality. Portola, San Mateo County, California.

Geogr. Distr. Coast region of California, from mountains of San Diego and San Bernardino County north to San Francisco.

c. Tamias townsendi ochrogenys (Merriam).

Eutamias townsendii ochrogenys Merriam, Proc. Biol. Soc. Wash., XI, 1897, p. 206.

Tamias townsendi ochrogenys Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 71. Zoöl. Ser.

BUFF-CHEEKED CHIPMUNK.

Type locality. Mendocino, Mendocino County, California.

Geogr. Distr. Cazadero, north of San Francisco Bay, California, to the mouth of Rogue River, Oregon.

d. Tamias townsendi littoralis Elliot.

Tamias townsendi littoralis Elliot, Pub. Field Columb. Mus., III, 1903, p. 153. Zoöl. Ser.

COAST CHIPMUNK.

Type locality. Marshfield, Coos County, Oregon.

Geogr. Distr. Coast of Oregon from Rogue River to the mouth of the Columbia.

Genl. Char. Size large; no white or grayish dorsal streaks; five distinct black stripes on back, intermediate ones slightly paler than the upper parts; antorbital stripe distinct; face ochraceous; under parts white.

Color. Upper parts and sides uniform dark ochre; top of head and nose black and ochraceous; five black dorsal stripes, central one from occiput to root of tail; space between stripes slightly paler than body color; face stripes and nose black; cheeks ochraceous; postauricular spot grayish white, under parts white; tail above dark ochraceous at base with black hairs intermingled, rest black tipped with white, tip black edged with white, beneath dark ochre at base, rest reddish ochre with black lateral band fringed with white; hands and feet pale grayish buff; ear black, with broad external band, including tip, white, external basal edge ochraceous.

Measurements. Total length, 262; tail vertebræ, 115; hind foot, 37; ear, 23. Skull: occipito-nasal length, 38; Hensel, 30; zygomatic width, 21; interorbital constriction, 8.5; length of nasals, 11; palatal length, 16; length of upper tooth row, alveolar border, 6; length of mandible, 16.

163. *Tamias merriami* (Allen).

Tamias asiaticus merriami Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 176.

Tamias merriami Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 71. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 137. Zoöl. Ser.

MERRIAM'S CHIPMUNK.

Type locality. San Bernardino Mountains, California.

Geogr. Distr. Mountains of southern California from Tulare and Monterey Counties south into Lower California, Mexico.

164. *Tamias bulleri* (Allen).

Tamias asiaticus bulleri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1889, p. 173.

Tamias bulleri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 136. Zoöl. Ser.

MEXICAN CHIPMUNK.

Type locality. Sierra de Valparaiso, State of Zacatecas, Mexico.

Geogr. Distr. State of Zacatecas, Mexico.

165. *Tamias durangæ* (Allen).

Eutamias durangæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 595.

Tamias durangæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 137. Zoöl. Ser.

DURANGO CHIPMUNK.

Type locality. Arroyo de Bucy, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico, range unknown.

166. *Tamias obscurus* Allen.

Tamias obscurus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 70. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 136, figs. 22, xxx. Zoöl. Ser.

LOWER CALIFORNIA CHIPMUNK.

Type locality. San Pedro Martir Mountains, Lower California, Mexico.

Geogr. Distr. San Pedro Martir and Hanson Laguna Mountains, Lower California.

167. *Tamias quadrimaculatus* Gray.

Tamias quadrimaculatus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 435. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 71. Zoöl. Ser.

Tamias macrorhabdotes Merr., Proc. Biol. Soc. Wash., III, 1886, p. 25, fig. p. 26.

FOUR-BANDED CHIPMUNK.

Type locality. Michigan Bluff, Sacramento Valley, California.

Geogr. Distr. Central California in the Sierra Nevada, Placer County, to Fort Klamath, Oregon, through the valley of the Sacramento River.

168. *Tamias senex* Allen.

Tamias senex Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 83.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 72.
Zoöl. Ser.

GRAY CHIPMUNK.

Type locality. Summit of Donner Pass, Placer County, California

Geogr. Distr. Cascade Mountains from Farewell Bend on the Des Chutes River in Oregon, south to the head waters of the Merced River in the Yosemite National Park.

169. *Tamias speciosus* Allen.

Tamias speciosus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890,

p. 86. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 72. Zoöl. Ser.

SHOWY CHIPMUNK.

Type locality. San Bernardino Mountains, San Bernardino County, California.

Geogr. Distr. San Bernardino and San Jacinto Mountains, California.

a. *Tamias speciosus inyoensis* (Merriam).

Eutamias speciosus inyoensis Merr., Proc. Biol. Soc. Wash., XI,
1897, p. 208.

Tamias callipeplus inyoensis Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 73. Zoöl. Ser. (Misplaced on page.)

INYO MOUNTAINS CHIPMUNK.

Type locality. White Mountains, Inyo County, California.

Geogr. Distr. Summits of the White and Inyo Mountains, California.

170. *Tamias callipeplus* Merriam.

Tamias callipeplus Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 136.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 73.
Zoöl. Ser.

BEAUTIFULLY GARBED CHIPMUNK.

Type locality. Mount Pinos, Ventura County, California.

Geogr. Distr. Mount Pinos and head waters of Yule River, north nearly to the Yosemite Valley.

171. *Tamias frater* Allen.

Tamias frater Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 88.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 73.
Zoöl. Ser.

RELATED CHIPMUNK.

Type locality. Sierra Nevada, Placer County, California.

Geogr. Distr. Western Nevada to Central California and region of Lake Tahoe.

172. *Tamias panamintinus* Merriam.

Tamias panamintinus Merr., Proc. Biol. Soc. Wash., VIII, 1893,
p. 134. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 74. Zoöl. Ser.

PANAMINT MOUNTAINS CHIPMUNK.

Type locality. Johnson Cañon, Panamint Mountains, Inyo County, California.

Geogr. Distr. West side of Great Basin in California and Nevada.

173. *Tamias amoenus* Allen.

Tamias amoenus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890,
p. 90. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 74. Zoöl. Ser.

CHARMING CHIPMUNK.

Type locality. Fort Klamath, Klamath County, Oregon.

Geogr. Distr. Fort Klamath, Oregon, to Placer County, California, and western Nevada about Lake Tahoe.

174. *Tamias caurinus* (Merriam).

Eutamias caurinus Merr., Proc. Acad. Nat. Scien. Phil., 1898,
p. 352.

Tamias caurinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 74. Zoöl. Ser.

NORTHWEST CHIPMUNK.

Type locality. Solduck Trail, Clallam County, Olympic Mountains, Washington.

Geogr. Distr. Olympic Mountains, Washington; timber line.

175. *Tamias cinereicollis* Allen.

Tamias cinereicollis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890,
p. 94. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 75. Zoöl. Ser.

ASH-COLORED CHIPMUNK.

Type locality. San Francisco Mountains, Coconino County, Arizona.

Geogr. Distr. San Francisco and Mogollon Mountains, Arizona.

a. Tamias cinereicollis canipes (Bailey).

Eutamias cinereicollis canipes Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 117.

GRAY-FOOTED CHIPMUNK.

Type locality. Guadalupe Mountains, El Paso County, Texas. Altitude, 7,000 feet.

Genl. Char. Similar to *T. cinereicollis* in fresh post-breeding pelage but grayer; paler ochraceous on sides; tips of long hairs on rump and upper surface of tail white instead of yellowish; feet clear gray; black dorsal stripe reaching to between ears.

Measurements. Total length, 230; tail vertebræ, 104; hind foot, 35. Skull: basal length, 30; length of nasals, 11; zygomatic width, 19.3; mastoid breadth, 15.8; length of upper molar series, alveolar border, 5.8.

176. *Tamias umbrinus* Allen.

Tamias umbrinus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 96. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 75. Zool. Ser.

DARK CHIPMUNK.

Type locality. Uintah Mountains, Utah, south of Fort Bridger, Sweetwater County, Wyoming.

Geogr. Distr. Wahsatch and Uintah Ranges of northern and central Utah, north into Wyoming.

177. *Tamias quadrivittatus* (Say).

Sciurus quadrivittatus Say, Long's Exped. Rocky Mts., II, 1823, p. 45.

Tamias quadrivittatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 75. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 138. Zool. Ser.

COLORADO CHIPMUNK.

Type locality. Arkansas River, Colorado, "near where it breaks through the foothills." Park County?

Geogr. Distr. State of Durango, Mexico, north to southern boundary of Colorado, northward through Wyoming to and including the Yellowstone National Park.

a. Tamias quadrivittatus gracilis Allen.

Tamias quadrivittatus gracilis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 99. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 76. Zool. Ser.

GRACEFUL CHIPMUNK.

Type locality. San Pedro, Socorro County, New Mexico.

Geogr. Distr. Socorro County, New Mexico, to Apache County, Arizona.

b. Tamias quadrivittatus luteiventris Allen.

Tamias quadrivittatus luteiventris Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 101. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 76. Zoöl. Ser.

BUFF-BELLIED CHIPMUNK.

Type locality. Chief Mountain Lake, northwestern Montana.

Geogr. Distr. Rocky Mountains in Montana from Helena northward; probably into British America.

c. Tamias quadrivittatus felix Rhoads.

Tamias quadrivittatus felix Rhoads, Amer. Nat., xxix, 1895, p. 941. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 76. Zoöl. Ser.

HAPPY CHIPMUNK.

Type locality. Mt. Baker Range, Westminster District, British Columbia, Canada. Altitude, 7,000 feet.

Geogr. Distr. Mt. Baker Range, British Columbia; range unknown.

d. Tamias quadrivittatus affinis Allen.

Tamias quadrivittatus affinis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 103. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 77. Zoöl. Ser.

ALLIED CHIPMUNK.

Type locality. Ashcroft, British Columbia, Canada.

Geogr. Distr. Interior of British Columbia, east of the Cascade Mountains.

e. Tamias quadrivittatus borealis (Allen).

Tamias asiaticus borealis Allen, Mon. N. Am. Rod., 1877, p. 793.

Tamias quadrivittatus borealis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 77. Zoöl. Ser.

NORTHERN CHIPMUNK.

Type locality. Fort Liard, Mackenzie, Canada.

Geogr. Distr. Northern North America, Hudson Bay to eastern base of Rocky Mountains; also in North and South Dakota and Montana.

f. Tamias quadrivittatus neglectus Allen.

Tamias quadrivittatus neglectus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 106. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 78. Zoöl. Ser.

NEGLECTED CHIPMUNK.

**Type locality.* Eastern end of Lake Superior, Ontario, Canada.

Geogr. Distr. Northeastern Minnesota, northern Wisconsin, northern peninsula of Michigan, and northern shore of Lake Superior.

178. *Tamias caniceps* (Osgood).

Eutamias caniceps Osgood, N. Am. Faun. No. 19, 1900, p. 28.

Tamias caniceps Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 426. Zoöl. Ser.

GRAY-HEADED CHIPMUNK.

Type locality. Lake Lebarge, Yukon, Canada.

Geogr. Distr. Head waters of the Yukon to Fort Selkirk, Long. 137° N., Lat. 62° W.

179. *Tamias canicaudus* (Merriam).

Eutamias canicaudus Merr., Proc. Biol. Soc. Wash., xvi, 1903, p. 77.

GRAY-TAILED CHIPMUNK.

Type locality. Spokane, Spokane County, Washington.

Geogr. Distr. Washington. Limits of range unknown.

Genl. Char. Size large; tail long; outer pair of stripes white.

Color. Spring Pelage. Above with middle pair of light stripes vinaceous gray; other stripes black, outer pair washed with fulvous; tail above grizzled gray edged with whitish; beneath with a median buffy band bordered with black and edged with whitish.

Post-breeding Pelage. Neck, sides, and edges of stripes washed with ochraceous or light fulvous.

Measurements. Total length, 228; tail vertebræ, 98; hind foot, 32.

180. *Tamias minimus* Bachman.

Tamias minimus Bachm., Journ. Acad. Nat. Scien. Phil., 1839, p. 71. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 78. Zoöl. Ser.

LEAST CHIPMUNK.

Type locality. Near Green River City, southwestern Wyoming.

Geogr. Distr. Bad Lands and plains of the Dakotas, Montana, and Wyoming.

a. *Tamias minimus consobrinus* (Allen).

Tamias asiaticus var. *pallidus* Allen, Mon. N. A. Roden., 1877, p. 793. (Part.)

Tamias minimus consobrinus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 112. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 78. Zoöl. Ser.

*Definite type locality of this species is not given.

RELATED CHIPMUNK.

Type locality. Wahsatch foothills near Salt Lake City, Utah.

Geogr. Distr. Eastern border of the Great Basin, in eastern Utah, western and southern Colorado, and northwestern New Mexico.

b. *Tamias minimus melanurus* Merriam.

Tamias minimus melanurus Merr., N. Am. Faun., No. 4, 1890, p. 22. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 79. Zool. Ser.

BLACK-TAILED CHIPMUNK.

Type locality. Near Blackfoot, Bingham County, Idaho.

Geogr. Distr. Known only from type locality.

c. *Tamias minimus pictus* Allen.

Tamias minimus pictus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 115. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 79. Zool. Ser.

PAINTED CHIPMUNK.

Type locality. Kelton, Boxelder County, Utah.

Geogr. Distr. Western border of Great Salt Lake westward, and from southern Utah and southern Nevada to the Snake Plains of eastern Washington.

d. *Tamias minimus alpinus* (Merriam).

Tamias alpinus Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 137.

Tamias minimus alpinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 79. Zool. Ser.

ALPINE CHIPMUNK.

Type locality. Big Cottonwood Meadows, high Sierras, Tulare County, California, south of Mt. Whitney.

Geogr. Distr. Alpine summit of high Sierras, California.

181. *Tamias lectus* (Allen).

Eutamias lectus Allen, Bull. Brookl. Inst. Arts & Scien., 1, No. 5, 1905, p. 117.

BEAVER VALLEY CHIPMUNK.

Type locality. Beaver Valley, Beaver County, Utah.

Geogr. Distr. Unknown.

Color. Post-breeding Pelage. Similar in size to *T. m. pictus*, but colors stronger; flanks, shoulders, and sides of neck, deep rufous; face stripes broader and darker, and light stripes narrower; post-auricular patch gray; central area of tail beneath bright rufous.

Breeding Pelage. Closely resembling the coloration of *T. cinerei-*

collis, but distinguished from that species by the small size of the present form.

Measurements. None given.

182. *Tamias adsitus* (Allen).

Eutamias adsitus Allen, Bull. Brookl. Inst. Arts & Scien., 1, No. 5, 1905, p. 118.

BEAVER MOUNTAINS CHIPMUNK.

Type locality. Briggs Meadows, Beaver Range Mountains, Utah. Altitude, 10,000 feet.

Geogr. Distr. Unknown.

Color. Similar to *T. lectus* in coloration, but one-third larger.

Measurements. None given.

183. *Tamias oreocetes* (Merriam).

Eutamias oreocetes Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 207.

Tamias oreocetes Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 80. Zoöl. Ser.

MOUNTAIN CHIPMUNK.

Type locality. Timber line near Summit, Teton Mountains, Teton County, Montana.

Geogr. Distr. Known only from type locality.

Subgenus B. *Tamias*.

184. *Tamias striatus* (Linnæus).

Sciurus striatus Linn., Syst. Nat., 1, 1758, p. 64.

Sciurus americanus Gmel., Syst. Nat., 1, 1788, p. 150.

Tamias striatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 80. Zoöl. Ser.

STRIPED CHIPMUNK.

Type locality. Virginia?

Geogr. Distr. Southern New York through Atlantic States to Georgia.

a. *Tamias striatus lysteri* (Richardson).

Sciurus (Tamias) lysteri Rich., Faun. Bor. Amer., Mamm., 1, 1829, p. 181, pl. 15.

Tamias striatus lysteri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 80. Zoöl. Ser.

LYSTER'S STRIPED CHIPMUNK.

Type locality. "Penetanguishene," Georgian Bay, Ontario, Canada.

Geogr. Distr. North latitude 50° in eastern North America south to northern New York, west to Michigan, and Ontario, Canada.

b. Tamias striatus griseus Mearns.

Tamias striatus griseus Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 231. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 81. Zool. Ser.

GRAY STRIPED CHIPMUNK.

Type locality. Fort Snelling, Hennepin County, Minnesota.

Geogr. Distr. Upper Mississippi Valley, west of Great Lakes.

c. Tamias striatus venustus Bangs.

Tamias striatus venustus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 137. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 81. Zool. Ser.

CHARMING STRIPED CHIPMUNK.

Type locality. Stillwell, Boston Mountains, Indian Territory.

Geogr. Distr. Known only from the type locality.

Genus 52. **Citellus. Spermophiles.**

Citellus Oken, Lehrb. der Naturg., Zool., 11, 1816, p. 842. Type *Mus citellus* Linnæus.

Spermophilus F. Cuv., Dents Mamm., 1825, pp. 160-161, pls. LV, 255.

Spermatophilus Wagl., Nat. Syst. Amphib., 1830, p. 22.

Citillus Lichten., Darst. neuer oder wenig bekannt. Säugeth., Heft 5, 1827-34, Taf. xxxi, fig. 2.

Colobotis Brandt, Bull. Classe Phys.-math. Acad. Imp. Scien. St. Pétersb., 11, 1844, p. 365.

Otospermophilus Brandt, Bull. Classe Phys.-math. Acad. Imp. Scien. St. Pétersb., 11, 1844, p. 379.

Otocolobus Brandt, Bull. Classe Phys.-math. Acad. Imp. Scien. St. Pétersb., 11, 1844, p. 382.

Ictidomys Allen, Mon. N. Am. Rod., 1877, p. 821.

Spermophilopsis Blasius, Tag. 57ten Vers. Deut. Nat. Aertz., 1884, p. 324.

Ammospermophilus Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 27.

Xerospermophilus Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 27.

Callospermophilus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 189 (note).

Subgenus A. **Ammospermophilus.**

185. Citellus harrisi (Audubon and Bachman).

Spermophilus harrisii Aud. & Bachm., Quad. N. Am., III, 1854, p. 267, pl. 144, fig. 1. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 85. Zool. Ser.

Citellus harrisi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 141. Zoöl. Ser.

HARRIS' SPERMOPHILE.

Type locality. Unknown.

Geogr. Distr. Southern Utah and Nevada into California and south into Arizona and northwestern New Mexico.

a. *Citellus harrisi saxicola* (Mearns).

Spermophilus harrisii saxicolus! Mearns, Proc. U. S. Nat. Mus., 1895, p. 444. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 86.

Citellus harrisi saxicola Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 142, fig. 23. Zoöl. Ser.

ROCK SPERMOPHILE.

Type locality. Tinajas Atlas, Gila Mountains, Yuma County, Arizona.

Geogr. Distr. Gila Mountains in southwestern Arizona, into Sonora.

186. *Citellus leucurus* (Merriam).

Tamias leucurus Merr., N. Am. Faun., No. 2, 1889, p. 20.

Spermophilus leucurus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 86, fig. 18. Zoöl. Ser.

Citellus leucurus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 142. Zoöl. Ser.

WHITE-TAILED SPERMOPHILE.

Type locality. San Gorgonio Pass, Riverside County, California.

Geogr. Distr. Lower California, Mexico into California, Utah, Arizona, and New Mexico.

a. *Citellus leucurus cinnamomeus* (Merriam).

Tamias leucurus cinnamomeus Merr., N. Am. Faun., No. 3, 1890, pp. 51, 52.

Spermophilus leucurus cinnamomeus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 86. Zoöl. Ser.

CINNAMON-HUED SPERMOPHILE.

Type locality. Echo Cliffs, Painted Desert, Coconino County, Arizona.

Geogr. Distr. Desert region of Colorado and Arizona.

b. *Citellus leucurus peninsulæ* (Allen).

Tamias leucurus peninsulæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 197.

Citellus leucurus peninsulæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 143, fig. 24. Zoöl. Ser.

LOWER CALIFORNIA SPERMOPHILE.

Type locality. San Telmo, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico; range unknown.

187. *Citellus vinnulus* Elliot.

Citellus vinnulus Elliot, Pub. Field Columb. Mus., III, 1903, p. 241.

Zoöl. Ser.

CHARMING SPERMOPHILE.

Type locality. Keeler, Owens Lake, Inyo County, California.

Geogr. Distr. Panamint, Coso, and Inyo Mountains to Keeler, Owens Lake, Inyo County, California.

Genl. Char. Similar to *C. l. peninsulæ*, but body and tail beneath white instead of pale yellow. Generally darker than *C. leucurus*, with smaller hind feet.

Color. Top of head and upper parts mixed black and vinaceous, the latter hue predominating; nape and between shoulders grayish; two white stripes from shoulders to rump; shoulders, top of fore legs and feet to toes, thighs and upper surface of hind legs and feet vinaceous; toes white on fore feet, buffy vinaceous at tips of hind feet; sides and face and neck and entire under parts of body, legs and feet silvery white, base of fur plumbeous; tail above on basal third like back, remainder black with white hairs intermingled, and edged with white, beneath white with a subapical black bar.

Measurements. Total length, 215; tail vertebræ, 66; hind foot, 38.5; ear, 12. Skull: total length, 37.3; Hensel, 30; zygomatic width, 19; interorbital constriction, 10; length of nasals, 10.5; palatal length, 12; length of upper tooth row, 7; length of mandible, 22; length of lower tooth row, 7.

188. *Citellus interpres* (Merriam).

Tamias interpres Merr., N. Am. Faun., No. 4, 1890, p. 21.

Spermophilus interpres Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 86. Zoöl. Ser.

Citellus interpres Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 143. Zoöl. Ser.

TRADER SPERMOPHILE.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. State of Chihuahua, Mexico, north to Utah.

189. *Citellus nelsoni* (Merriam).

Spermophilus nelsoni Merr., Proc. Biol. Soc. Wash., VIII, 1893,

p. 129. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 87. Zoöl. Ser.

NELSON'S SPERMOPHILE.

Type locality. Tipton, San Joaquin Valley, Tulare County, California.

Geogr. Distr. South central California.

Subgenus B. *Xerospermophilus*.190. *Citellus obsoletus* (Kennicott).

Spermophilus obsoletus Kennicott, Proc. Acad. Nat. Scien. Phil., 1863, p. 157. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 95. Zoöl. Ser.

KENNICOTT'S SPERMOPHILE.

Type locality. Western Nebraska.

Geogr. Distr. Black Hills, South Dakota into Nebraska and westward to Utah.

191. *Citellus spilosoma* (Bennett).

Spermophilus spilosoma Bennett, Proc. Zoöl. Soc., 1833, p. 40. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 96. Zoöl. Ser.

Spermophilus mexicanus Aud. & Bachm., Quad. N. Am., III, 1853, p. 42, pl. CIX.

Citellus spilosoma Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 145. Zoöl. Ser.

SPOTTED SPERMOPHILE.

Type locality. California near Mexican boundary.

Geogr. Distr. New Mexico and Texas south into Sonora, Mexico.

a. *Citellus spilosoma macrospilotus* (Merriam).

Spermophilus spilosoma macrospilotus Merr., N. Am. Faun., No. 4, 1890, p. 38. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 96, fig. 21. Zoöl. Ser. (Misprinted *microspilotus*.)

Citellus spilosoma macrospilotus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 145, fig. 25. Zoöl. Ser. (Misprinted *microspilotus*.)

SPOTTED SPERMOPHILE.

Type locality. Oracle, Pinal County, Arizona.

Geogr. Distr. Southern Arizona into State of Sonora, Mexico.

b. *Citellus spilosoma major* (Merriam).

Spermophilus spilosoma major Merr., N. Am. Faun., No. 4, 1890, p. 39. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 96. Zoöl. Ser.

LARGE SPOTTED SPERMOPHILE.

Type locality. Albuquerque, Bernalillo County, New Mexico.

Geogr. Distr. Eastern New Mexico.

c. *Citellus spilosoma pratensis* (Merriam).

Spermophilus spilosoma pratensis Merr., N. Am. Faun., No. 3, 1890, p. 55. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 96. Zoöl. Ser.

PARK SPERMOPHILE.

Type locality. Pine plateau at north foot of San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. San Francisco Mountain, northwestern Arizona.

d. *Citellus spilosoma marginatus* (Bailey).

Spermophilus spilosoma marginatus Bailey, Proc. Biol. Soc. Wash., XV, 1902, p. 118.

BAILEY'S SPERMOPHILE.

Type locality. Alpina, Brewster County, Texas.

Geogr. Distr. Limits of range unknown.

Genl. Char. Similar to typical *C. spilosoma* from New Mexico, but smaller and colors brighter.

Color. Above bright cinnamon brown; back from the ears spotted with whitish edged with black.

Measurements. Total length, 225; tail vertebræ, 67; hind foot, 32. Skull: basal length, 33.7; length of nasals, 13.3; zygomatic breadth, 23.5; mastoid breadth, 19; alveolar length of upper molar series, 7.2.

e. *Citellus spilosoma obsidianus* (Merriam).

Spermophilus spilosoma obsidianus Merr., N. Am. Faun., No. 3, 1890, p. 56. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 97. Zoöl. Ser.

DARK SPOTTED SPERMOPHILE.

Type locality. Cedar Belt, northeast of San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Limits of range unknown.

f. *Citellus spilosoma annectens* (Merriam).

Spermophilus spilosoma annectens Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 132. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 97. Zoöl. Ser.

PADRE ISLAND SPERMOPHILE.

Type locality. Padre Island, Cameron County, Texas.

Geogr. Distr. Mustang and Padre Islands, Cameron County, Texas; the former island probably the northern limit of the race.

g. *Citellus spilosoma arens* (Bailey).

Spermophilus spilosoma arens Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 118.

LANGUISHING SPERMOPHILE.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. Limits of range unknown.

Genl. Char. Similar to *C. cryptospilotus* but larger, spots coarser.

Skull: longer, nasals wider, dentition heavier.

Color. Above light clay or dark buffy, spotted over back and rump with white without black edgings.

Measurements. Total length, 237; tail vertebræ, 85; hind foot, 35. *Skull:* basal length, 33; length of nasals, 12; zygomatic breadth, 18; length of upper molar series, 7.

192. *Citellus cryptospilotus* (Merriam).

Spermophilus cryptospilotus Merr., N. Am. Faun., No. 3, 1890, p. 57. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 97. Zoöl. Ser.

DESERT SPERMOPHILE.

Type locality. Tenebito Wash, Painted Desert, 25 miles east of the Little Colorado, Coconino County, Arizona.

Geogr. Distr. Painted Desert, Arizona.

193. *Citellus canescens* (Merriam).

Spermophilus canescens Merr., N. Am. Faun., No. 4, 1890, p. 38.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 97.

Zoöl. Ser.

DRAB GRAY SPERMOPHILE.

Type locality. Wilcox, Cochise County, Arizona.

Geogr. Distr. Southeastern Arizona.

194. *Citellus eremonomus* Elliot.

Citellus eremonomus Elliot, Pub. Field Columb. Mus., III, 1903,

p. 243. Zoöl. Ser.

DEATH VALLEY SPERMOPHILE.

Type locality. Furnace Creek, Death Valley, Inyo County, California.

Genl. Char. Size small; color dark; tail with only basal half like the back. *Skull:* similar to that of *C. t. mohavensis*, but processes of the pterygoids do not touch the bullæ.

Color. Upper parts grizzled vinaceous cinnamon; sides of face, nose, and body, inner sides of limbs and entire under parts silvery white; fore feet pale brown, hind feet whitish; tail above, basal half grizzled vinaceous cinnamon like the back, terminal half blackish

mixed with white hairs and narrowly edged with white, beneath silvery white at base, remainder buff mixed with black, bordered and tipped with black and narrowly fringed with white. Ear very small, similar in color to the back.

Measurements. Total length, 252; tail vertebræ, 89; hind foot, 35; ear, 8.5. Skull: total length, 36; occipito-nasal length, 35; Hensel, 30; zygomatic width, 23; interorbital constriction, 9.5; palatal length, 17; length of nasals, 12; length of upper tooth row, 7; length of mandible, 2.5; of lower tooth row, 7.

195. *Citellus tereticaudus* (Baird).

Spermophilus tereticaudus Baird, N. Am. Mamm., 1857, p. 315.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 98. Zoöl. Ser.

Citellus tereticaudus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 144. Zoöl. Ser.

ROUND-TAILED SPERMOPHILE.

Type locality. Old Fort Yuma, San Diego County, California.

Geogr. Distr. Central California to Tucson Plain, Arizona; Lower California and State of Sonora, Mexico.

a. *Citellus tereticaudus mohavensis* (Merriam).

Spermophilus mohavensis Merr., N. Am. Faun., No. 2, 1889, p. 15.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 98. Zoöl. Ser.

Citellus tereticaudus mohavensis Elliot, Pub. Field Columb. Mus., III, 1903, p. 291. Zoöl. Ser.

MOHAVE DESERT SPERMOPHILE.

Type locality. Mohave River, San Bernardino County, California.

Geogr. Distr. Mohave Desert, California.

b. *Citellus tereticaudus sonoriensis* (Ward).

Spermophilus sonoriensis Ward, Amer. Nat., xxv, 1891, p. 158.

Citellus tereticaudus sonoriensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 144. Zoöl. Ser.

SONORAN SPERMOPHILE.

Type locality. Hermosillo, State of Sonora, Mexico.

Geogr. Distr. State of Sonora. Range unknown.

196. *Citellus perotensis* (Merriam).

Spermophilus perotensis Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 131.

Citellus perotensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 145. Zoöl. Ser.

PEROTE SPERMOPHILE.

Type locality. Perote, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico, extreme eastern border of tableland. Altitude, 8,000 to 10,000 feet.

197. *Citellus neglectus* (Merriam).

Spermophilus neglectus Merr., N. Am. Faun., No. 2, 1889, p. 17.

Elliot; Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 98.

Zoöl. Ser.

NEGLECTED SPERMOPHILE.

Type locality. Dolan's Springs, Mohave County, Arizona.

Geogr. Distr. Arizona.

193. *Citellus chlorus* Elliot.

Citellus chlorus Elliot, Pub. Field Columb. Mus., III, 1903, p. 242.

Zoöl. Ser.

PALE SPERMOPHILE.

Type locality. Palm Springs, Riverside County, California.

Geogr. Distr. Riverside and San Diego Counties, California.

Genl. Char. Size equal to *C. tereticaudus*, color entirely different.

Skull heavy, tail long.

Color. Entire upper parts and sides olive gray with a brownish sheen in certain lights; upper parts of arms and thighs olive gray; entire under parts grayish white; hands brownish, feet whitish; tail above, basal half like back, slightly more brownish, apical half blackish mixed with brown and edged with white, beneath pale brown margined narrowly with black and fringed with white; ears very small, blackish.

Measurements. Total length, 255; tail vertebræ, 100; hind foot, 37; ear, 8. Skull: total length, 32; Hensel, 30; interorbital width, 8; zygomatic width, 22; width of braincase, 18; length of nasals, 8; palatal length, 17; length of upper tooth row, 7; length of mandible, 24; length of lower tooth row, 6.5.

199. *Citellus mexicanus* (Erxleben).

Sciurus mexicanus Erxl., Syst. Regn. Anim., I, 1777, p. 428.

Citellus mexicanus Licht., Darst. Neu. oder wenig bekannt.

Säugeth., 1830, pl. 31, fig. 2. (ex Toluca.) Elliot, Mamm.

Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 146. Zoöl. Ser.

Spermophilus mexicanus Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 98. Zoöl. Ser.

MEXICAN SPERMOPHILE.

Type locality. Toluca, Mexico.

Geogr. Distr. South Central Mexico.

a. Citellus mexicanus parvidens (Mearns).

Spermophilus mexicanus parvidens Mearns, Proc. U. S. Nat. Mus., XVIII, 1896, p. 443. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 99. Zoöl. Ser.

Citellus mexicanus parvidens Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 146. Zoöl. Ser.

SMALL-TOOTHED SPERMOPHILE.

Type locality. Fort Clark, Kinney County, Texas.

Geogr. Distr. Texas into Mexico.

Subgenus C. *Ictidomys*.

200. Citellus tredecimlineatus (Mitchill).

Sciurus tredecimlineatus (sic) Mitch., Lond. Med. Repos., N. S., 1821, p. 248.

Arctomys hoodi Sabine, Trans. Linn. Soc., 1822, p. 590, pl. 29.

Spermophilus tredecimlineatus! Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 100, fig. 22. Zoöl. Ser.

13-STRIPED SPERMOPHILE.

Type locality. Upper Mississippi. Central Minnesota?

Geogr. Distr. Central North America; eastern Michigan to Montana and Colorado, and central Texas north to Saskatchewan Plains in Canada, and in prairie region of the Mississippi from Ohio to Minnesota.

a. Citellus tredecimlineatus pallidus (Allen).

Spermophilus tredecimlineatus! *pallidus* Allen, Mon. N. Am. Rod., 1877, p. 872. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 100. Zoöl. Ser.

PALLID SPERMOPHILE.

Type locality. Plains of the lower Yellowstone River.

Geogr. Distr. Wyoming south to Texas and east to Missouri, on the plains and desert regions.

b. Citellus tredecimlineatus olivaceus (Allen).

Spermophilus tredecimlineatus! *olivaceus* Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 337. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 100. Zoöl. Ser.

OLIVACEOUS SPERMOPHILE.

Type locality. Custer, Black Hills, South Dakota.

Geogr. Distr. South Dakota.

c. Citellus tredecimlineatus parvus (Allen).

Spermophilus tredecimlineatus! *parvus* Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 337. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 100. Zoöl. Ser.

LITTLE SPERMOPHILE.

Type locality. Uncompahgre Indian Reservation, northeastern Utah.

Geogr. Distr. Utah and Wyoming.

d. *Citellus tredecimlineatus alleni* (Merriam).

Spermophilus tridecemlineatus! alleni Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 71. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 101. Zoöl. Ser.

ALLEN'S SPERMOPHILE.

Type locality. Bighorn Mountains, Wyoming.

Geogr. Distr. Wyoming. Range unknown.

e. *Citellus tredecimlineatus texensis* (Merriam).

Spermophilus tridecemlineatus! texensis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 71. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 101. Zoöl. Ser.

TEXAS SPERMOPHILE.

Type locality. Gainesville, Cooke County, Texas.

Geogr. Distr. Northern Texas and Oklahoma Territory. Range unknown.

f. *Citellus tredecimlineatus badius* (Bangs).

Spermophilus tridecemlineatus! badius Bangs, Proc. N. Eng. Zoöl. Club, 1899, p. 1. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 101. Zoöl. Ser.

BAY SPERMOPHILE.

Type locality. Stotesburg, Vernon County, Missouri.

Geogr. Distr. Missouri. Range unknown.

201. *Citellus franklini* (Sabine).

Arctomys franklinii Sabine, Trans. Linn. Soc., 1822, p. 587, pl. 27. *Spermophilus franklini* Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 101. Zoöl. Ser.

FRANKLIN'S SPERMOPHILE.

Type locality. Near Cumberland House, Saskatchewan, Canada.

Geogr. Distr. Valley of the Saskatchewan, and through those of the Red River and Mississippi to the Dakotas and central Kansas. Eastern limit western Indiana.

Subgenus D. *Callospermophilus*.202. *Citellus lateralis* (Say).

Sciurus lateralis Say, Long's Exped. Rocky Mts., II, 1823, p. 46.

Spermophilus lateralis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., I, 1901, p. 83, fig. 17. Zoöl. Ser.

STRIPED SPERMOPHILE.

Type locality. Arkansas River, near Cañon City, Colorado.

Geogr. Distr. Colorado, Utah (Uintah Mts.) and Arizona (White and San Francisco Mts.).

a. *Citellus lateralis saturatus* (Rhoads).

Tamias lateralis saturatus Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 43.

Spermophilus lateralis saturatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 83. Zoöl. Ser.

DARK SPERMOPHILE.

Type locality. Lake Kichelos, Kittitas County, Washington.

Geogr. Distr. Central Washington. Range unknown.

203. *Citellus madrensis* (Merriam).

Callospermophilus madrensis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 563.

Citellus madrensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 147, fig. 26. Zoöl. Ser.

SIERRA MADRE SPERMOPHILE.

Type locality. Sierra Madre near Guadalupe y Calvo, State of Chihuahua, Mexico. Altitude, 7,000 feet.

Geogr. Distr. State of Chihuahua, Mexico. Range unknown.

204. *Citellus cinerascens* (Merriam).

Tamias cinerascens Merr., N. Am. Faun., No. 4, 1890, p. 20.

Spermophilus cinerascens Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 83. Zoöl. Ser.

ASHY SPERMOPHILE.

Type locality. Helena, Lewis and Clarke County, Montana. Altitude, 4,500 feet.

Geogr. Distr. Montana, Idaho, and northward into Alberta, Canada.

205. *Citellus castanurus* (Merriam).

Tamias castanurus Merr., N. Am. Faun., No. 4, 1890, p. 19.

Spermophilus castanurus Elliot, N. Am. Mamm., F. C. M. Pub., II, 1901, p. 84. Zoöl. Ser.

CHESTNUT-TAILED SPERMOPHILE.

Type locality. Park City, Wahsatch Mountains, Summit County, Utah. Altitude, 7,000 feet.

Geogr. Distr. Wahsatch Mountains, Utah.

206. *Citellus chrysodeirus* (Merriam).

Tamias chrysodeirus Merr., N. Am. Faun., No. 4, 1890, p. 19.

Spermophilus chrysodeirus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 84. Zoöl. Ser.

GOLDEN-NECK SPERMOPHILE.

Type locality. Fort Klamath, Klamath County, Oregon.

Geogr. Distr. Oregon, northern California, and western Nevada.

a. *Citellus chrysodeirus trinitatis* (Merriam).

Callospermophilus chrysodeirus trinitatis Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 126.

TRINITY MOUNTAINS SPERMOPHILE.

Type locality. Trinity Mountains, east of Hoopa Valley, Humboldt County, California. Altitude, 5,700 feet.

Geogr. Distr. Trinity Mountains, California. Range unknown.

Genl. Char. Large. Similar to *C. chrysodeirus*, but darker.

Color. Like *C. chrysodeirus* in winter pelage, no golden hue on head or shoulders; tail beneath dark chestnut.

Measurements. Total length, 290; tail vertebræ, 105; hind foot, 44.

b. *Citellus chrysodeirus bernardinus* (Merriam).

Spermophilus chrysodeirus brevicaudus Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 134. (Preoccupied.)

Spermophilus bernardinus Merriam, Science, N. S., VIII, 1898, p. 782.

Spermophilus chrysodeirus bernardinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 84. Zool. Ser.

SAN BERNARDINO SPERMOPHILE.

Type locality. San Bernardino Peak, San Bernardino County, California.

Geogr. Distr. Southern California.

207. *Citellus wortmani* (Allen).

Tamias wortmani Allen, Bull. Amer. Mus. Nat. Hist. N. Y., 1895, p. 335.

Spermophilus wortmani Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 84. Zool. Ser.

WORTMAN'S SPERMOPHILE.

Type locality. Kinney Ranch, Bitter Creek, Sweetwater County, Wyoming.

Geogr. Distr. Wyoming. Limits of range unknown.

Subgenus E. *Oolobotis*.208. *Citellus parryi* (Richardson).

Arctomys parryi Richard., Append. Parry's Sec. Voy., 1825, p. 316.

Arctomys parryi var. *phæognatha* Rich., Faun. Bor. Am., Mamm., I, 1829, p. 161.

Arctomys kennicottii Ross, Canad. Nat. and Geol., 1861, p. 434.

Spermophilus empetra Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 89. Zoöl. Ser. (nec Pallas.)

PARRY'S SPERMOPHILE.

Type locality. Five Hawser Bay, Lyon Inlet, Melville Peninsula, Keewatin, Canada.

Geogr. Distr. Arctic America from Melville Peninsula to Icy Cape, Bering Sea, southwest along the Yukon River for a considerable distance, and in the east to the verge of the Barren Grounds, Latitude 65°.

a. *Citellus parryi kadiacensis* (Allen).

Spermophilus parryi var. *kodiacensis* Allen, Proc. Bost. Soc. Nat. Hist., XVI, 1874, p. 292.

Spermophilus empetra var. *kodiacensis* Allen, Mon. N. Am. Rod., 1877, p. 839.

Spermophilus empetra kadiacensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 90, fig. 20. Zoöl. Ser.

KADIAK ISLAND SPERMOPHILE.

Type locality. Island of Kadiak, Alaska.

Geogr. Distr. Kadiak Island, Alaska, only.

209. *Citellus erythroglutæus* (Richardson).

Arctomys parryi var. *B. erythrogluteia*! Richard., Faun. Bor. Amer., Mamm., I, 1829, p. 161.

Citellus erythrogluteius! Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 534.

RED-THIGHED SPERMOPHILE.

Type locality. Head of Elk River, Rocky Mountains. Latitude 57° N.

Geogr. Distr. From Elk River, British Columbia, possibly northward to Lake Bennett.

Genl. Char. Resembles *C. columbianus* in size and general coloration. Lower surface of tail rufous. Skull narrow, slender.

Color. Male Post-breeding Pelage. Dorsal area iron gray blotched with small white spots, the hairs tipped with whitish; top of nose to middle of eyes bright rusty chestnut; sides of neck, shoulders, forearms and thighs and the entire ventral surface deep rusty ochraceous; central area of the tail beneath rufous.

Measurements. Total length, 318-349; tail vertebræ, 75-92; hind foot, 47-56; ear, 11-12.

210. **Citellus plesius* (Osgood).

Spermophilus empetra plesius Osgood, N. Am. Faun., No. 19,

*This may prove to be the same as *C. erythroglutæus* Richardson.

1900, p. 29. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, Append., p. 427. Zool. Ser.

OSGOOD'S SPERMOPHILE.

Type locality. Bennett City, Lake Bennett, British Columbia, Canada.

Geogr. Distr. South Side of White Pass to Fort Selkirk, Alaska.

a. Citellus plesius ablusus Osgood.

Citellus plesius ablusus Osgood, Proc. Biol. Soc. Wash., xvi,
1903, p. 25.

NUSHAGAK SPERMOPHILE.

Type locality. Nushagak, Alaska.

Genl. Char. Similar to *C. plesius*, but larger. Skull larger, nasals longer, narrower, and more restricted posteriorly; molars about the size of those of *C. plesius*.

Color. Forehead and crown burnt umber; sides of head, nape, shoulders and neck pale gray, blackish slate under fur showing through in places; orbital ring and subauricular spot white; middle of back and rump Vandyke brown spotted with grayish white; under parts dull grayish white; tail beneath tawny in center, lateral hairs with three or four dusky rings and grayish white tip; pencil with black subterminal section, then one or two narrow dusky rings; tip white; hands and feet creamy white.

Measurements. Total length, 394; tail vertebræ, 103; hind foot, 60. Skull: Hensel, 49; occipito-nasal length, 57.5; zygomatic breadth, 38; length of nasals, alveolar border, 13.3.

211. *Citellus nebulicola* Osgood.

Citellus nebulicola Osgood, Proc. Biol. Soc. Wash., xvi, 1903, p. 26.

NAGAI ISLAND SPERMOPHILE.

Type locality. Nagai Island, Shumagin Islands, Alaska.

Genl. Char. Similar to *C. p. kadiacensis*, but smaller; tail shorter, paler. Skull: small; basi-occipital narrower; audital bullæ higher; braincase narrower.

Color. Similar to *C. p. kadiacensis*, but paler; tail with less black; under parts ochraceous, as are also the arms, neck, and face; tail beneath, tawny margined with buff and submargined with black for distal half; forehead and crown mars brown; upper parts mixed black and russet spotted with creamy white.

Measurements. Total length, 340; tail vertebræ, 82; hind foot, 53. Skull: Hensel, 42; occipito-nasal length, 49; zygomatic width, 32; length of nasals, 18; upper molar series, alveolar border, 12.

212. *Citellus beringensis* (Merriam).

Spermophilus beringensis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 20. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 91. Zoöl. Ser.

BERING'S SPERMOPHILE.

Type locality. Cape Lisbourne, Alaska.

Geogr. Distr. Northern Alaska.

213. *Citellus osgoodi* (Merriam).

Spermophilus osgoodi Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 18. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 91. Zoöl. Ser.

OSGOOD'S SPERMOPHILE.

Type locality. Fort Yukon, Alaska.

Geogr. Distr. Northern Alaska.

214. *Citellus barrowensis* (Merriam).

Spermophilus barrowensis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 19. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 91. Zoöl. Ser.

BARROW'S SPERMOPHILE.

Type locality. Point Barrow, Alaska.

Geogr. Distr. Northwestern Alaska.

215. *Citellus stonii* Allen.

Citellus stonei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 537.

STONE'S SPERMOPHILE.

Type locality. Wrangel Island, Alaska.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size large; colors gray and rufous.

Color. Above gray suffused with rufous, increasing in intensity on lower back and rump, the hairs being black basally, then a bright buff band, then a dark brown band suffused with rusty, and tip white; among these are dispersed long black hairs; front of hairs rusty cinnamon; posterior half rusty and blackish; sides of face and neck gray; arms paler gray and buffy; sides of shoulders suffused with pale rufous; thighs pale rufous; feet above deep rusty, beneath gray; front and sides of nose, underside of head, throat, breast, and inside of arms whitish; ventral surface washed with pale rufous; tail above at base tinged with rusty, rest gray, bordered with black and fringed broadly with pale yellowish white, and a broad subapical band of black; beneath pale brownish rusty, with a black subapical band and a yellowish white fringe.

Measurements. Total length, 350; tail vertebræ, 100; hind foot, 59. Skull: total length, 59; zygomatic breadth, 37; length of nasals, 22; width of nasals at base, 5.

216. *Citellus columbianus* (Ord).

Arctomys columbianus Ord, Guth. Geogr., 2d Am. ed., II, 1815, p. 292.

Spermophilus columbianus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 91. Zool. Ser.

COLUMBIAN SPERMOPHILE.

Type locality. Camas prairie, between the forks of the Clearwater and Kooskooskie Rivers, about forty miles from Moscow, Lincoln County, Washington.

Geogr. Distr. Western Montana to Washington and north through British Columbia and Alaska to Plover Bay in Siberia.

a. *Citellus columbianus albertæ* Allen.

Citellus columbianus albertæ Allen, Am. Mus. Nat. Hist. N. Y., 1903, p. 537. (Footnote.)

ALBERTA SPERMOPHILE.

Type locality. Canadian National Park, Alberta, Canada.

Genl. Char. Similar to *C. columbianus*. Skull more massive; interorbital foramen triangular instead of circular and postpalatal border more produced.

Color. Like *C. columbianus*, but paler.

Measurements. Total length, 321; tail vertebræ, 108; hind foot, 57. Skull: total length, 52; zygomatic breadth, 33.

217. *Citellus richardsoni* (Sabine).

Arctomys richardsonii Sabine, Trans. Linn. Soc., 1822, p. 589, pl. 28.

Arctomys (Spermophilus) guttatus Rich., Faun. Bor. Amer., Mamm., I, 1829, p. 162. (nec Temm.)

Spermophilus richardsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 92. Zool. Ser.

RICHARDSON'S SPERMOPHILE.

Type locality. Carlton House, Saskatchewan, Canada.

Geogr. Distr. From Aberdeen, South Dakota, to North Dakota and Montana, west to Rocky Mountains and north to the Saskatchewan River to latitude 55°.

218. *Citellus townsendi* (Bachman).

Spermophilus townsendii Bachm., Jour. Acad. Nat. Scien. Phil., 1839, p. 61. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 92. Zool. Ser.

TOWNSEND'S SPERMOPHILE.

Type locality. Plains of the Columbia near the mouth of the Walla Walla River, Walla Walla County, Washington.

Geogr. Distr. Nebraska westward to plains of the Columbia River, and from Wyoming and Utah to Montana, Idaho, and Oregon.

219. *Citellus mollis* (Kennicott).

Spermophilus mollis Kennicott, Proc. Acad. Nat. Scien. Phil., 1863, p. 158. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 92. Zool. Ser.

KENNICOTT'S SPERMOPHILE.

Type locality. Camp Floyd near Fairfield, Wasatch County, Utah.

Geogr. Distr. Utah and Nevada, limits of range unknown.

a. *Citellus mollis stephensi* (Merriam).

Spermophilus mollis stephensi Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 69. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 93. Zool. Ser.

STEPHEN'S SPERMOPHILE.

Type locality. Queen's Station, Owens Valley, Esmeralda County, Nevada. Altitude, 6,000 feet.

Geogr. Distr. Nevada.

b. *Citellus mollis yakimensis* (Merriam).

Spermophilus mollis yakimensis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 70. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 93. Zool. Ser.

YAKIMA SPERMOPHILE.

Type locality. Mabton, Yakima County, Washington.

Geogr. Distr. Eastern Washington.

c. *Citellus mollis canus* (Merriam).

Spermophilus mollis canus Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 70. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 93. Zool. Ser.

HOARY SPERMOPHILE.

Type locality. Antelope, Wasco County, Oregon.

Geogr. Distr. Northern Oregon, range unknown.

220. *Citellus armatus* (Kennicott).

Spermophilus armatus Kennicott, Proc. Acad. Nat. Scien. Phil., 1863, p. 158. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 93. Zool. Ser.

ARMED SPERMOPHILE.

Type locality. Fort Bridger, foothills of the Uinta Mountains, Sweetwater County, Utah.

Geogr. Distr. Utah, Wyoming, Idaho, and Montana. Precise range unknown.

221. *Citellus elegans* (Kennicott).

Spermophilus elegans Kennicott, Proc. Acad. Nat. Scien. Phil., 1863, p. 158. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 94. Zoöl. Ser.

Spermophilus richardsoni var. *townsendi* Allen, Mon. Rod., 1877, p. 848. (nec. Bachm.)

ELEGANT SPERMOPHILE.

Type locality. Fort Bridger, Sweetwater County, Wyoming.

Geogr. Distr. Wyoming and Utah.

222. *Citellus beldingi* (Merriam).

Spermophilus beldingi Merr., Ann. Acad. Nat. Scien. N. Y., 14, 1888, p. 317. Elliot, N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 94. Zoöl. Ser.

BELDING'S SPERMOPHILE.

Type locality. Donner, Placer County, California.

Geogr. Distr. California.

223. *Citellus oregonus* (Merriam).

Spermophilus oregonus Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 69. Elliott, N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 94. Zoöl. Ser.

OREGON SPERMOPHILE.

Type locality. Swan Lake Valley, Klamath Basin, Oregon.

Geogr. Distr. Known only from type locality.

Subgenus F. *Otospermophilus*.

224. *Citellus variegatus* (Erxleben).

Sciurus variegatus Erxl., Syst. Regn. Anim., 1, 1777, p. 421.

Citellus variegatus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 148, figs. 27, xxxi. Zoöl. Ser.

LONG-TAILED SPERMOPHILE.

Type locality. State of Jalisco?

Geogr. Distr. States of Sonora and Jalisco, Mexico.

a. *Citellus variegatus grammurus* (Say).

Sciurus grammurus Say, Long's Exped. Rocky Mts., 11, 1823, p. 72.

Spermophilus macrourus Bennett, Proc. Zoöl. Soc., 1833, p. 41.

Spermophilus couchii Baird, N. Am. Mamm., 1857, p. 311, pl. 81.

Spermophilus grammurus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 88, fig. 19. (Part.) Zoöl. Ser.

Citellus variegatus grammurus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 149. Zoöl. Ser.

BUSHY-TAILED SPERMOPHILE.

Type locality. Purgatory Creek, Arkansas River near Bent's Fort, Otero County, Colorado.

Geogr. Distr. Parks of Central Colorado, south into State of Sonora, Mexico.

b. *Citellus variegatus beecheyi* (Richardson).

Arctomys beecheyi Rich., Faun. Bor. Amer., Mamm., 1, 1829, p. 170.

Sciurus (Macroxus) californicus Less., Mamm. & Ois. Nouv., 1847, p. 143.

Spermophilus grammurus beecheyi Elliot, Syn. N. Am. Mamm., F.

C. M. Pub., II, 1901, p. 88. Zoöl. Ser.

BEECHEY'S SPERMOPHILE.

Type locality. Vicinity of San Francisco, or Monterey.

Geogr. Distr. West of the Sierra Nevada, northern California.

c. *Citellus variegatus fisheri* (Merriam).

Spermophilus beecheyi fisheri Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 133.

Spermophilus grammurus fisheri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 88. Zoöl. Ser.

Citellus variegatus fisheri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 150. Zoöl. Ser.

FISHER'S SPERMOPHILE.

Type locality. Kern Valley, twenty-five miles above Kernville, Tulare County, California.

Geogr. Distr. Central and southern California to western border of Nevada. Lower California, Mexico.

d. *Citellus variegatus atricapillus* (Bryant).

Spermophilus grammurus atricapillus Bryant, Proc. Calif. Acad. Scien., 2d Ser., II, 1889, p. 26.

Citellus variegatus atricapillus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 150. Zoöl. Ser.

BLACK-HEADED SPERMOPHILE.

Type locality. Comondu, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico.

e. *Citellus variegatus rupestris* Allen.

Citellus grammurus rupestris Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 595.

Citellus variegatus rupestris Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 150. Zoöl. Ser.

ROCK SPERMOPHILE.

Type locality. Rio Sestin, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico.

f. *Citellus variegatus utah* Merriam.

Citellus variegatus utah Merr., Proc. Biol. Soc. Wash., xvi, 1903,
p. 77.

UTAH SPERMOPHILE.

Type locality. Wasatch Mountains near Ogden, Utah.

Geogr. Distr. Utah.

Genl. Char. "Similar to *C. variegatus*, but smaller, ears longer, back redder, tail darker, nasals longer, and extending more behind premaxillæ, point of incisors pale yellow."

g. *Citellus variegatus douglasi* (Richardson).

Arctomys (Spermophilus) douglasii Rich., Faun. Bor. Amer.,
Mamm., I, 1829, p. 172.

Spermophilus grammurus douglasi Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., II, 1901, p. 89. Zoöl. Ser.

DOUGLAS' SPERMOPHILE.

Type locality. Plains of the Columbia River, Oregon.

Geogr. Distr. Northern California, Oregon.

h. *Citellus variegatus buckleyi* (Slack).

Spermophilus buckleyi Slack, Proc. Acad. Nat. Scien. Phil., 1861,
p. 314.

Spermophilus grammurus buckleyi Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., II, 1901, p. 89. Zoöl. Ser.

BUCKLEY'S SPERMOPHILE.

Type locality. Pack-saddle Mountain, Llano County, Texas.

Geogr. Distr. Central Texas.

225. *Citellus nesioticus* Elliot.

Citellus nesioticus Elliot, Field Columb. Mus. Pub., III, 1904, p.
263. Zoöl. Ser.

ISLAND SPERMOPHILE.

Type locality. Santa Catalina Island, California.

Geogr. Distr. Santa Catalina Island, California.

Genl. Char. Color dark; little or none of the yellowish brown hue so conspicuous in *C. v. beecheyi*. Skull shorter and broader; molar broad and heavy; nasals short; braincase short, contracted anteriorly; antorbital processes very long; pterygoid fossa very short, and processes of pterygoid very long and turning sharply outward at tips; basi-occipital short and broad; bullæ large; palate very broad;

zygomatic arch widely expanded; occipital region low and broad; azygos process on palatal arch.

Color. Top of head from forehead to between ears jet black mixed with a few tawny hairs; nose tawny ochraceous; sides of head mixed tawny ochraceous and black; back and sides black and tawny ochraceous, the black predominating; under parts buffy ochraceous; hands and feet buff, ankles tawny; limbs mixed buff and black; tail above mixed buff and black appearing gray with a black border and pale buff fringe, beneath mixed buff and black; ears black.

Measurements. Total length, 476.2; tail vertebræ, 184; hind foot, 60. Skull: occipito-nasal length, 60.5; zygomatic width, 39; inter-orbital constriction, 15.5; width of postorbital processes, 27; braincase above zygomata, 25.3; length of braincase, 31; median length of nasals, 19; lateral length of nasals, 20; length of pterygoids, 11; palatal length, 30; length of upper tooth row, 12; length of mandible, 36; length of lower tooth row, 11.

226. *Citellus annulatus* (Audubon and Bachman).

Spermophilus annulatus Aud. & Bachm., Jour. Acad. Nat. Scien. Phil., 1842, p. 319.

Citellus annulatus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 151. Zoöl. Ser.

RING-TAILED SPERMOPHILE.

Type locality. Western Mexico?

Geogr. Distr. Plains of State of Colima and Territory of Tepic, western Mexico; extent of range unknown.

a. *Citellus annulatus goldmani* (Merriam).

Spermophilus annulatus goldmani Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 69.

Citellus annulatus goldmani Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 151. Zoöl. Ser.

GOLDMAN'S SPERMOPHILE.

Type locality. Santiago, Territory of Tepic, Mexico.

Geogr. Distr. Limits of range unknown.

227. *Citellus adocetus* Merriam.

Citellus adocetus Merr., Proc. Biol. Soc. Wash., xvi, 1903, p. 79.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 152. Zoöl. Ser.

PLAIN-TAILED SPERMOPHILE.

Type locality. La Salada, forty miles south of Uruapan, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, Mexico.

Genus 53. **Cynomys.**

Cynomys Rafin., Am. Month. Mag., 11, 1817, p. 45. Type *Arctomys ludovicianus* Ord.

Anisonyx Rafin., Am. Month. Mag., 11, 1817, p. 45. (nec Latreille, Coleopt., 1807.)

Monax Warden, Statist. Polit. Hist. Acc. U. S., 1, 1819, pp. 225-228.

228. Cynomys ludovicianus (Ord).

Arctomys ludovicianus Ord, Guth. Geogr., 2d Am. ed., 11, 1815, p. 292.

Cynomys socialis Rafin., Am. Month. Mag., 11, 1817, p. 45.

Cynomys grisea Rafin., Am. Month. Mag., 11, 1817, p. 45.

Arctomys missouriensis Warden, Desc. États Unis, v, 1820, p. 627.

Arctomys latrans Harlan, Faun. Am., 1825, p. 306.

Cynomys ludovicianus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 102, fig. 23. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 155, figs. 28, xxxii. Zoöl. Ser.

PRAIRIE-DOG. *Perrito*, *Perrito del Campo* in Mexico.

Type locality. Plains of the Upper Missouri.

Geogr. Distr. From 49th parallel southwest of the Mississippi through western Kansas and Texas into the State of Chihuahua, Mexico.

229. Cynomys pyrrotrichus Elliot.

Cynomys pyrrotrichus Elliot, Proc. Biol. Soc. Wash., xviii, 1905, p. 139.

RED PRAIRIE-DOG.

Type locality. White Horse Spring, Oklahoma Territory.

Genl. Char. General color cinnamon rufous, altogether different from that of *C. ludovicianus*. Skull compared with that of above-named species has a narrower palate and larger bullæ; and with *arizonensis* has a broader braincase and wider nasals.

Color. Head, upper parts of body and sides cinnamon rufous, darkest on head and dorsal region, each hair tipped with whitish, most conspicuous on sides of rump and flanks; under parts and inner side of legs pale yellowish washed or tinged with rufous on chest and abdomen grading on sides into the color of the flanks; upper parts of fore legs and feet pale vinaceous cinnamon; outer side of thighs pale cinnamon rufous; feet pale vinaceous buff; claws black; tail cinnamon rufous, grading to Van Dyke brown at tips.

Measurements. Total length, 385; tail vertebræ, 70; hind foot, 58. Skull, total length, 63; Hensel. 52; zygomatic width, 45; greatest width of braincase, 25; length of nasals, 21; palatal length, 31.5; length of upper molar series, 13; length of mandible, angle to top of incisors, 18; of lower molar series, 16.

230. *Cynomys arizonensis* Mearns.

Cynomys arizonensis Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 305. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 104. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 154. Zoöl. Ser.

ARIZONA PRAIRIE-DOG.

Type locality. Point of Mountain near Wilcox, Cochise County, Arizona.

Geogr. Distr. Arizona into State of Chihuahua.

231. *Cynomys gunnisoni* (Baird).

Spermophilus gunnisoni Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 334.

Cynomys gunnisoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 103. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 156. Zoöl. Ser.

GUNNISON'S PRAIRIE-DOG.

Type locality. Cochetopa Pass, Rocky Mountains, Saguache County, Colorado.

Geogr. Distr. Colorado, Arizona, and New Mexico, into State of Chihuahua, Mexico.

232. *Cynomys lewisi* (Audubon and Bachman).

Arctomys lewisii Aud. & Bachm., Quad. N. Am., 111, 1853, p. 32, pl. cvii.

Cynomys leucurus Merr., N. Am. Faun., No. 4, 1890, p. 33.

Cynomys lewisi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 104. Zoöl. Ser.

LEWIS' PRAIRIE-DOG.

Type locality. Fort Bridger, Sweetwater County, Wyoming.

Geogr. Distr. Wyoming, Utah in the Uncompahgre Indian Reservation.

233. *Cynomys parvidens* Allen.

Cynomys parvidens Allen, Bull. Brookl. Inst. Arts & Scien., 1, No. 5, 1905, p. 119.

UTAH PRAIRIE-DOG.

Type locality. Buckskin Valley, Iron County, Utah.

Geogr. Distr. Unknown.

Genl. Char. Two-thirds of tail white; dentition weak.

Color. Above dull rufous, hairs posteriorly tipped with dusky; top of head and cheeks mixed with black; black spot above eye; thighs and fore legs yellowish rufous; beneath yellowish buff; tail, basal third like body, remainder white.

Measurements. Hind foot (skin), 53; none other given.

234. *Cynomys mexicanus* Merriam.

Cynomys mexicanus Merr., Proc. Biol. Soc. Wash., VII, 1892, p.

157. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 156. Zoöl. Ser.

MEXICAN PRAIRIE-DOG.

Type locality. La Ventura, State of Coahuila, Mexico.

Geogr. Distr. Northern and eastern Mexico.

Genus 54. *Marmota*. Woodchucks.

* ***Marmota*** Frisch, Natur-Syst. vierfüß. Thiere, in Tabellen, 9, 1775.

Type ———— ?

Mus Linn., Syst. Nat., I, 1758, p. 60. (Part.)

Glis Erxleb., Syst. Regn. Anim., 1777, p. 358. (Part. nec Brisson, 1762.)

Arctomys Schreb., Säugth., IV, 1780, pp. 721-743; pls. CCVII-CCXI.

Lipura Illig., Prodr. Syst. Mamm. et Av., 1811, p. 95.

235. *Marmota monax* (Linnæus).

Mus monax Linn., Syst. Nat., I, 1758, p. 60.

Arctomys monax Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 105, fig. 24. Zoöl. Ser.

WOODCHUCK.

Type locality. Maryland.

Geogr. Distr. From New York to Georgia, west to the Dakotas, intergrading in the Alleghanian and Canadian faunæ with next three species.

a. *Marmota monax ignavus* (Bangs).

Arctomys ignavus Bangs, Proc. N. Eng. Zoöl. Club, 1899, p. 13.

Arctomys monax ignavus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 105. Zoöl. Ser.

**Marmota* of Frisch includes the following species: *Mus alpinus*, *Marmota polonica*, *Cricetus*, Europe; and *Gerboa*, Africa.

LABRADOR WOODCHUCK.

Type locality. Black Bay, Straits of Belle Isle, Labrador.

Geogr. Distr. Labrador. Range unknown.

b. *Marmota monax canadensis* (Erxleben).

Glis canadensis Erxl., Syst. Regn. Anim., 1777, p. 363.

Mus empetra Pallas, Nov. Spec. Quad. Glir. Ord., 1778, p. 75.

Arctomys melanopus Kuhl, Beitr., 1820, p. 64.

Arctomys monax canadensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 106. Zoöl. Ser.

CANADIAN WOODCHUCK.

Type locality. Hudson Bay.

Geogr. Distr. Newfoundland to Rocky Mountains in Arctic America, and from 57° N. latitude to central New England, west to northeastern Minnesota.

236. *Marmota pruinosa* (Gmelin).

Arctomys pruinosis Gmel., Syst. Nat., I, 1788, p. 144. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 106. Zoöl. Ser.

Arctomys caligatus Eschsch., Zool. Atlas, II, 1829, pl. 6.

HOARY WOODCHUCK.

Type locality. Hudson Bay region?

Geogr. Distr. Columbia River northward to the Barren Grounds, Arctic America, east to Hudson Bay.

237. *Marmota flaviventer* (Audubon and Bachman).

Arctomys flaviventer Aud. & Bach., Proc. Acad. Nat. Scien. Phil., 1841, p. 99. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 106. Zoöl. Ser.

YELLOW-BELLIED WOODCHUCK.

Type locality. "Mountains between Texas and California."

Geogr. Distr. Western Texas, New Mexico, and Arizona north to 49th parallel.

a. *Marmota flaviventer avarus* (Bangs).

Arctomys flaviventer avarus Bangs, Proc. N. Eng. Zoöl. Club, 1899, p. 68. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 427. Zoöl. Ser.

GREEDY WOODCHUCK.

Type locality. Okanagan, British Columbia, Canada.

Geogr. Distr. British Columbia. Range unknown.

238. *Marmota dakota* (Merriam).

Arctomys dacota Merr., N. Am. Faun., No. 2, 1889, p. 8. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 106. Zoöl. Ser.

DAKOTA WOODCHUCK.

Type locality. Custer, Black Hills, South Dakota.

Geogr. Distr. South Dakota. Range unknown.

239. *Marmota engelhardti* Allen.

Marmota engelhardti Allen, Bull. Brookl. Inst. Arts & Scien., 1, No. 5, 1905, p. 120.

ENGELHARDT'S WOODCHUCK.

Type locality. Briggs Meadows, Beaver Range Mountains, Utah. Altitude, 10,000 feet.

Geogr. Distr. Unknown.

Genl. Char. Similar to *M. flaviventer* and *M. dakota*, but darker in color; palate more produced posteriorly; dentition weaker.

Color. Side of nose, chin, and anterior part of throat white; top of head black; upper parts, shoulders and thighs, grizzled gray and dusky brown; under fur blackish slate basally, tipped broadly with cinnamon; long hairs black tipped with white; orbital ring, and patch on side of neck, pale rusty yellow; ventral surface deep chestnut, basal third of hairs posteriorly blackish; upper surface of hind feet deep chestnut; tail long, proximal half varied with gray and rusty-tipped hairs; apical half black.

Measurements. (Dried skin.) Total length, 640; tail vertebrae, 160; hind foot, 70. Skull: total length, 74; zygomatic breadth, 48.3; length of nasals, 29; breadth of rostrum in front, 15.

240. *Marmota olympus* (Merriam).

Arctomys olympus Merr., Proc. Acad. Nat. Scien. Phil., 1898, p. 352. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 107. Zool. Ser.

OLYMPIC MOUNTAINS WOODCHUCK.

Type locality. Solduc Trail, timber line, Olympic Mountains, Clallam County, Washington.

Geogr. Distr. High Mountains, northwestern Washington.

Subfamily II. **Pteromyinæ.**Genus 55. **Sciuropterus. Flying Squirrels.**

Sciuropterus F. Cuv., Dents Mammifères, 1825, pp. 161-162, 255, pl. 56. Type *Sciurus volans* Linnæus.

241. *Sciuropterus alpinus* (Richardson).

Pteromys alpinus Rich., Zool. Journ., III, 1828, p. 519.

Pteromys sabrinus var. *β. alpinus* Richard., Faun. Bor. Amer., 1, Mamm., 1829, p. 195, pl. 16.

Sciuropterus volans alpinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 109. Zoöl. Ser.

RICHARDSON'S FLYING SQUIRREL.

Type locality. Head waters of the Athabasca and Peace Rivers, Alberta, Canada.

Geogr. Distr. From the Mackenzie River along east side of the Rocky Mountains to the United States border.

a. Sciuropterus alpinus zaphæus Osgood.

Sciuropterus alpinus zaphæus Osgood, Proc. Biol. Soc. Wash., XVIII, 1905, p. 133.

DUSKY ALASKAN FLYING SQUIRREL.

Type locality. Helm Bay, Cleveland Peninsula, Alaska.

Geogr. Distr. Only known from the type locality.

Genl. Char. Similar to *S. alpinus*, but darker.

Color. Above pale russet; dusky line from base of whiskers to and around eye, thence gray to posterior base of ear; lateral line black; upper side of forearm blackish brown; sides of throat grayish; axillary region creamy buff; throat whitish; breast and middle of belly creamy buff; sides of belly and under side of hind legs pale creamy mixed with dusky; anal region pale russet mixed with dusky; hairs of tail above subterminally broccoli brown, overlaid with black; beneath more rufescent, with an indistinct grayish median line; upper side of fore and hind feet blackish brown.

Measurements. "Total length, 311; tail vertebræ, 133; hind foot, 42. Skull: basilar length of Hensel, 32.3; occipito-nasal length, 41.4; zygomatic breadth, 26.2; constriction in front of postorbital processes, 8.3; median length of nasals, 12.8; upper tooth row, 8.2."

b. Sciuropterus alpinus californicus Rhoads.

Sciuropterus alpinus californicus Rhoads, Proc. Acad. Nat. Scien. Phil., 1897, p. 323.

Sciuropterus volans californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 110. Zoöl. Ser.

CALIFORNIAN FLYING SQUIRREL.

Type locality. San Bernardino Mountains, southern California.

Geogr. Distr. Mountain ranges, southeastern California.

c. Sciuropterus alpinus oregonensis (Bachman).

Pteromys oregonensis Bachm., Jour. Acad. Nat. Scien. Phil., 1839, p. 101.

Sciuropterus volans oregonensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 110. Zoöl. Ser.

OREGON FLYING SQUIRREL.

Type locality. Probably near St. Helen, Columbia County, Oregon.

Geogr. Distr. Southern Alaska to northern California, at lower elevations on the Pacific slopes.

d. *Sciuropterus alpinus olympicus* Elliot.

Sciuropterus alpinus olympicus Elliot, Pub. Field Columb. Mus.

I, 1899, p. 225. Zoöl. Ser.

Sciuropterus volans olympicus Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 110. Zoöl. Ser.

OLYMPIC MOUNTAINS FLYING SQUIRREL.

Type locality. Happy Lake, Clallam County, Olympic Mountains, Washington.

Geogr. Distr. Higher parts of the Olympic Mountains, northwestern Washington.

e. *Sciuropterus alpinus fuliginosus* Rhoads.

Sciuropterus alpinus fuliginosus Rhoads, Proc. Acad. Nat. Scien.

Phil., 1897, p. 32.

Sciuropterus volans fuliginosus Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 111. Zoöl. Ser.

DUSKY FLYING SQUIRREL.

Type locality. Martin Station, Kittitass County, Cascade Mountains, Washington.

Geogr. Distr. Cascade, Coast, and Sierra Nevada Ranges, at high elevations.

f. *Sciuropterus alpinus klamathensis* Merriam.

Sciuropterus alpinus klamathensis Merr., Proc. Biol. Soc. Wash.,

XI, 1897, p. 225.

Sciuropterus volans klamathensis Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 111. Zoöl. Ser.

KLAMATH FLYING SQUIRREL.

Type locality. Fort Klamath, Klamath County, Oregon. Altitude, 4,200 feet.

Geogr. Distr. Oregon. Range unknown.

g. *Sciuropterus alpinus lascivus* Bangs.

Sciuropterus alpinus lascivus Bangs, Proc. N. Engl. Zoöl. Club, I,

1899, p. 69. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, Suppl., p. 428. Zoöl. Ser.

FRISKY FLYING SQUIRREL.

Type locality. Tallac, El Dorado County, California.

Geogr. Distr. California. Range unknown.

h. Sciuropterus alpinus stephensi (Merriam).

Sciuropterus oregonensis stephensi Merr., Proc. Biol. Soc. Wash., XIII, 1900, p. 151.

Sciuropterus stephensi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 111. Zoöl. Ser.

STEPHENS' FLYING SQUIRREL.

Type locality. Sherwood, Mendocino County, California. Altitude, 2,500 feet.

Geogr. Distr. Western California.

i. Sciuropterus alpinus bangsi Rhoads.

Sciuropterus alpinus bangsi Rhoads, Proc. Acad. Nat. Scien. Phil., 1897, p. 321. (Footnote.)

BANGS' FLYING SQUIRREL.

Type locality. Idaho County, Idaho.

Geogr. Distr. Idaho.

Genl. Char. Smaller and darker than *S. alpinus*.

Color. Sides of face, lips, eyelids, and ears smoky gray shaded with brown; upper parts of body wood brown; underparts tinged with wood brown, darkest on sides of abdomen; tail heavily shaded with black above and below; hands and feet grayish plumbaceous.

Measurements. Total length, 304; tail vertebræ, 146; hind foot, 40; ear from crown, 16.

242. Sciuropterus sabrinus (Shaw).

Sciurus sabrinus Shaw, Gen. Zoöl., I, 1801, p. 157.

Sciurus hudsonius Gmel., Syst. Nat., I, 1788, p. 153. (nec Pallas.)

Sciurus acrobates Wagn., Schreb. Säugth., Suppl., IV, 1843, p. 231, pl. CCXXII, B.

Sciuropterus sabrinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 107. Zoöl. Ser.

BOREAL FLYING SQUIRREL.

Type locality. Severn River, Keewatin, Canada.

Geogr. Distr. Eastern boreal North America, south to northern New York and southern New Hampshire.

a. Sciuropterus sabrinus macrotis Mearns.

Sciuropterus sabrinus macrotis Mearns, Proc. U. S. Nat. Mus., XXI, 1899, (1898), p. 353, figs. 1, 2, 3. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 108. Zoöl. Ser.

LARGE-EARED FLYING SQUIRREL.

Type locality. Hunter Mountain, Catskill Mountains, Greene County, New York.

Geogr. Distr. Northern border of the United States, east of the Great Lakes.

b. Sciuropterus sabrinus makkovikensis Sornborger.

Sciuropterus sabrinus makkovikensis Sornborger, Ottawa Nat., XIV, 1900, p. 48.

MAKKOVIK FLYING SQUIRREL.

Type locality. Makkovik, Labrador.

Geogr. Distr. Labrador. Range unknown.

Genl. Char. Size large, color dark.

Color. Similar to *S. sabrinus* but darker above, beneath whitish; tail sooty, basal half darkest.

Measurements. Total length, —; tail vertebræ, —; hind foot, 40.5-42. Skull: occipito-nasal length, 35-41.4; Hensel, 27.9-33; zygomatic width, 21-26.2; interorbital constriction, 7.1-8.9; length of mandible, 21-25.9; length of lower molar series, 6.7-8.2.

c. Sciuropterus sabrinus silus (Bangs).

Sciuropterus silus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 163.

Sciuropterus sabrinus silus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 108. Zoöl. Ser.

PUG-NOSED FLYING SQUIRREL.

Type locality. Katis Mountain, White Sulphur Springs, Greenbrier County, West Virginia.

Geogr. Distr. Probably the higher southern Alleghanies.

243. *Sciuropterus yukonensis* Osgood.

Sciuropterus yukonensis Osgood, N. Am. Faun., No. 19, 1900, p. 25. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 428. Zoöl. Ser.

YUKON FLYING SQUIRREL.

Type locality. Camp Davidson, Yukon River near Alaska, Canada boundary, Yukon, Canada.

Geogr. Distr. Possibly from Chilkoot Inlet, Alaska, north to Canada boundary.

244. *Sciuropterus volans* (Linnæus).

Mus volans Linn., Syst Nat., I, 1758, p. 63; I, 1766, p. 85. (*Mus nec Sciurus*, p. 88.)

Sciurus volucella Pallas, Nov. Spec. Quad. Glir., 1778, p. 351.

Sciuropterus volans Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 109, fig. 25. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 158, figs. 29, xxxiii. Zoöl. Ser.

COMMON FLYING SQUIRREL.

Type locality. Virginia.

Geogr. Distr. Northern New York and southern New Hampshire south to Florida, west to the plains.

a. Sciuropterus volans querceti Bangs.

Sciuropterus volans querceti Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 166. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 109. Zoöl. Ser.

FLORIDA FLYING SQUIRREL.

Type locality. Citronelle, Citrus County, Florida.

Geogr. Distr. Southern Georgia and Florida, west to Louisiana?

b. Sciuropterus volans goldmani Nelson.

Sciuropterus volans goldmani Nelson, Proc. Biol. Soc. Wash., xvii, 1904, p. 148.

MEXICAN FLYING SQUIRREL.

Type locality. Twenty miles southeast of Teopisca, State of Chiapas, Mexico.

Geogr. Distr. Highlands of the State of Chiapas, Mexico, and Guatemala.

Genl. Char. Like *S. v. querceti*; top of nose white; membrane beneath ochraceous buff.

Color. Upper parts reddish brown; top and side of nose, lower part of cheeks and sides of neck to back of ears whitish; between eye and ear dusky, lower part of cheeks and sides of head below ears dingy grayish brown; supraloral spot whitish; underside of neck and body white tinted with buff; upper surface of membrane blackish slate color. under surface deep ochraceous buff; tail above cinnamon brown, beneath dingy buff; top of fore feet dingy whitish; top of hind feet dusky, toes dingy white.

Measurements. Total length, 237; tail vertebræ, 112; hind foot, 30. Skull: Hensel, 28; interorbital width, 7.5; zygomatic width, 22; greatest width of braincase, 17.5; length of nasals, 10.2; width of rostrum, 6; depth of rostrum, 7.

Family II. **Haplodontidæ. Sewellels.**

Genus 56. **Haplodontia.**

Aplodontia (*sic*) Rich., Zoöl. Journ., iv, 1829, p. 334. Type *Aplodontia! leporina* Richardson = *Anisonyx rufa* Rafinesque.

Anisonyx Rafin., Am. Month. Mag., II, 1817, p. 45. (Part.)

245. Haplodontia rufa (Rafinesque).

Anisonyx rufa Rafin., Am. Month. Mag., II, 1817, p. 45.

Aplodontia! leporina Rich., Faun. Bor. Amer., Mamm., I, 1829, p. 211, pl. 18 C.

Haplodontia rufa Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 112. Zoöl. Ser.

RUFIOUS SEWELLEL.

Type locality. Cascades of the Columbia River, Oregon.

Geogr. Distr. Eastern Washington and Oregon.

a. *Haplodontia rufa californica* Peters.

Haplodon californica Peters, Monatsb. K. Preus. Akad. Wiss. Berl., 1864, p. 179.

Aplodontia! major Merr., Ann. Acad. Scien N. Y., III, 1886, p. 316.

Haplodontia rufa californica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 112, fig. 26. Zoöl. Ser.

CALIFORNIA SEWELLEL.

Type locality. Sierra Nevada Range, Placer County, California.

Geogr. Distr. California. Range unknown.

b. *Haplodontia rufa rainieri* (Merriam).

Aplodontia! major rainieri Merr., Proc. Biol. Soc. Wash., XIII, 1899, p. 21.

Haplodontia rufa rainieri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 112. Zoöl. Ser.

MOUNT RAINIER SEWELLEL.

Type locality. Paradise Creek, south of Mount Rainier, Lewis County, Washington. Altitude, 5,200 feet.

Geogr. Distr. Washington. Range unknown.

246. *Haplodontia pacifica* (Merriam).

Aplodontia! pacifica Merr., Proc. Biol. Soc. Wash., XIII, 1899, p. 19.

Haplodontia pacifica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 114. Zoöl. Ser.

PACIFIC SEWELLEL.

Type locality. Newport, Yaquina Bay, Lincoln County, Oregon.

Geogr. Distr. Oregon. Range unknown.

247. *Haplodontia phæa* (Merriam).

Aplodontia! phæa Merr., Proc. Biol. Soc. Wash., XIII, 1899, p. 20.

Haplodontia phæa Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 114. Zoöl. Ser.

DARK SEWELLEL.

Type locality. Point Reyes, Marin County, California.

Geogr. Distr. Western California. Range unknown.

248. *Haplodontia olympica* (Merriam).

Aplodontia! olympica Merr., Proc. Biol. Soc. Wash., XIII, 1899, p. 20.

Haplodontia olympica Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 114. Zoöl. Ser.

OLYMPIC MOUNTAINS SEWELLEL. *Farmer*.

Type locality. Queniult Lake, Chehalis County, Olympic Mountains, Washington.

Geogr. Distr. Olympic Mountains, Washington. Range undetermined.

Family III. **Castoridae. Beavers.**

Genus 57. **Castor.**

Castor Linn., Syst. Nat., 1, 1758, p. 58; 1, 1766, p. 78. Type *Castor fiber* Linnæus.

249. **Castor canadensis** Kuhl.

Castor canadensis Kuhl, Beit. Zool., 1820, p. 64. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 116, fig. 27. Zoöl. Ser.

CANADA BEAVER.

Type locality. Hudson Bay.

Geogr. Distr. Northeastern North America from northern limit of trees to United States, and west to Cascade Mountains.

a. Castor canadensis carolinensis Rhoads.

Castor canadensis carolinensis Rhoads, Trans. Am. Philos. Soc., 1898, p. 420. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 116. Zoöl. Ser.

CAROLINA BEAVER.

Type locality. Dan River, near Danbury, Stokes County, North Carolina.

Geogr. Distr. North Carolina west to Louisiana.

b. Castor canadensis frondator Mearns.

Castor canadensis frondator Mearns, Proc. U. S. Nat. Mus., 1897, p. 502. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 116. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 159, figs. 30, xxxiv. Zoöl. Ser.

SONORAN BEAVER.

Type locality. San Pedro River, State of Sonora, Mexico, near monument No. 98 of the Mexican boundary line.

Geogr. Distr. From State of Sonora, Mexico, to Wyoming and Montana, intergrading into the other forms wherever the limits of their dispersion meet.

c. Castor canadensis pacificus Rhoads.

Castor canadensis pacificus Rhoads, Trans. Am. Philos., 1898, p. 422. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 117. Zoöl. Ser.

PACIFIC COAST BEAVER.

Type locality. Lake Kichelos, Cascade Mountains, Kittitass County, Washington.

Geogr. Distr. Pacific Slope; California to Alaska.

Family IV. **Muridæ. Rats, Mice, Voles.**

Subfamily I. **Murinae.**

Genus 58. **Mus.**

Mus Linn., Syst. Nat., 1, 1758, p. 59; 1, 1766, p. 79. Type *Mus rattus* Linnæus.

250. Mus rattus Linnæus.

Mus rattus Linn., Syst. Nat., 1, 1758, p. 61; 1, 1766, p. 83. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 117, fig. 28. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 163, figs. 31, xxxv. Zoöl. Ser.

BLACK RAT.

Type locality. Sweden.

Geogr. Distr. Cosmopolitan.

251. Mus norvegicus Erxleben.

Mus norvegicus Erxl., Syst. Regn. Anim., 1777, p. 381. Elliot, Syn. N. Am. Mamm., 11, 1901, Append., p. 428. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 164. Zoöl. Ser.

Mus decumanus Pall., Nov. Sp. Quad. Glir., 1778, p. 91. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 117. Zoöl. Ser.

NORWAY RAT.

Type locality. Norway.

Geogr. Distr. Cosmopolitan.

252. Mus alexandrinus I. Geoffroy.

Mus alexandrinus I. Geoff., Descr. Égypte, 11, 1813, p. 733; Atl. pl. v, fig. 1. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 118. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 164. Zoöl. Ser.

Mus tectorum Savi, Nov. Giorn. di Lett., 1825.

BROWN RAT.

Type locality. Alexandria, Egypt.

Geogr. Distr. Cosmopolitan.

253. *Mus musculus* Linnæus.

Mus musculus Linn., Syst. Nat., 1, 1758, p. 62; 1, 1766, p. 83.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 118.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., 14, Pt. 1, 1904, p. 162. Zoöl. Ser.

HOUSE MOUSE.

Type locality. Sweden.

Geogr. Distr. Cosmopolitan.

a. Mus musculus jalapæ Allen and Chapman.

Mus musculus jalapæ Allen and Chapman, Bull. Am. Mus. Nat.

Hist. N. Y., 1897, p. 198. Elliot, Mamm. Middle Amer. &

W. Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 163. Zoöl. Ser.

JALAPA HOUSE MOUSE.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

Subfamily II. **Cricetinae.**Genus 59. **Onychomys.**

Onychomys Baird, N. Am. Mamm., 1857, p. 458. Type *Hypudæus leucogaster* Maximilian.

Hypudæus Max., Reise N. Am., 11, 1841, p. 99. (nec Auct.)

254. *Onychomys leucogaster* (Maximilian).

Hypudæus leucogaster Max., Reise N. Am., 11, 1841, p. 99.

Mus missouriensis Aud. & Bach., 11, 1851, p. 327, pl. 100.

Onychomys leucogaster Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., 11, 1901, p. 119, fig. 29. Zoöl. Ser.

WHITE-BELLIED MOLE MOUSE.

Type locality. Clark, Clark County, South Dakota.

Geogr. Distr. South Dakota, Missouri, Nebraska, Kansas, Oklahoma and Indian Territories.

a. Onychomys leucogaster brevicaudus Merriam.

Onychomys leucogaster brevicaudus Merr., N. Am. Faun., No. 5, Montan., 1891, p. 52. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., their dispers., 1901, p. 120. Zoöl. Ser.

SHORT-TAILED MOLE MOUSE.

Type locality. Blackfoot, Bingham County, Idaho.

Geogr. Distr. Idaho. Range unknown.

b. *Onychomys leucogaster longipes* (Merriam).

Onychomys longipes Merr., N. Am. Faun., No. 2, 1889, p. 1.

Onychomys leucogaster longipes Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 120. Zool. Ser.

LONG-FOOTED MOLE MOUSE.

Type locality. Concho County, Texas.

Geogr. Distr. West central Texas.

c. *Onychomys leucogaster albescens* Merriam.

Onychomys leucogaster albescens Merr., Proc. Biol. Soc. Wash.,

XVII, 1904, p. 124. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, Append., p. 742. Zool. Ser.

SAMALAYUCA MOLE MOUSE.

Type locality. Samalayuca, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico. Range unknown.

255. *Onychomys melanophrys* (Merriam).

Onychomys leucogaster melanophrys Merr., N. Am. Faun., No. 2,

1889, p. 2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,

1901, p. 120. Zool. Ser.

Onychomys melanophrys Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 166. Zool. Ser.

BLACK-BROWED MOLE MOUSE.

Type locality. Kanab, Kane County, Utah.

Geogr. Distr. Utah. Range unknown.

a. *Onychomys melanophrys pallescens* Merriam.

Onychomys melanophrys pallescens Merr., N. Am. Faun., No. 3,

1890, p. 61. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 166. Zool. Ser.

Onychomys leucogaster pallescens Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 121. Zool. Ser.

PALE MOLE MOUSE.

Type locality. Moki Pueblos, Apache County, Arizona.

Geogr. Distr. Northeastern Arizona.

256. *Onychomys ruidosæ* Stone & Rehn.

Onychomys ruidosæ Stone & Rehn, Proc. Acad. Nat. Scien. Phil.,

1903, p. 22.

RUIDOSO MOLE MOUSE.

Type locality. Ruidoso, Lincoln County, New Mexico.

Geogr. Distr. New Mexico. Range unknown.

Genl. Char. Nearest to *O. melanophrys*, but redder; head and ears darker; pterygoid fossa narrower.

Color. Above dull ferrugineous, rump clear rufous; head and nape blackish gray washed with ferrugineous; ears blackish gray mixed with silvery hairs, most numerous towards tip; chin pale grayish pink; under parts and limbs dull white; tail mixed brown and white above.

Measurements. Total length, 156; tail vertebræ, 47; hind foot, 22.

257. *Onychomys arcticeps* Rhoads.

Onychomys arcticeps Rhoads, Proc. Acad. Nat. Scien. Phil., 1898, p. 194. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 121. Zoöl. Ser.

RHOADS' MOLE MOUSE.

Type locality. Clapham, Union County, New Mexico.

Geogr. Distr. Northeastern New Mexico.

258. *Onychomys longicaudus* Merriam.

Onychomys longicaudus Merr., N. Am. Faun., No. 2, 1889, p. 2.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 121.

Zoöl. Ser.

LONG-TAILED MOLE MOUSE.

Type locality. St. George, Washington County, Utah.

Geogr. Distr. Utah. Range unknown.

a. *Onychomys longicaudus tularensis* (Merriam).

Onychomys torridus tularensis Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 123.

TULARE MOLE MOUSE.

Type locality. Bakersfield, Kern County, California.

Geogr. Distr. Tulare Basin from Huron and Alcade south, the Carrizo Plains on the west, and Kern Valley on the east.

Genl. Char. Similar to *O. longicaudus*, but paler and without ochraceous suffusion; size small.

Color. Pale drab gray tinged with buff.

Measurements. Average of 5 specimens: Total length, 143; tail vertebræ, 50; hind foot, 21.

259. *Onychomys ramona* Rhoads.

Onychomys ramona Rhoads, Amer. Nat., 1893, p. 833. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 121. Zoöl.

Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub.,

IV, Pt. I, 1904, p. 167. Zoöl. Ser.

RAMONA MOLE MOUSE.

Type locality. San Bernardino Valley, California.

Geogr. Distr. Southeastern California.

260. *Onychomys torridus* (Coues).

Hesperomys (Onychomys) torridus Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 183.

Onychomys torridus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 122. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 167, figs. 32, xxxvi. Zoöl. Ser.

TROPICAL MOLE MOUSE.

Type locality. Camp Grant, Graham County, Arizona.

Geogr. Distr. Between the Mississippi River and the Rocky Mountains. Upper Missouri, Red River of the North, Wyoming, Kansas, and Arizona.

a. *Onychomys torridus yakiensis* Merriam.

Onychomys torridus yakiensis Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 124. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 742. Zoöl. Ser.

YAKI MOLE MOUSE.

Type locality. Camoa Rio Mayo, State of Sonora, Mexico.

Geogr. Distr. Western part of the State of Sonora, and northern part of the State of Sinaloa, Mexico.

b. *Onychomys torridus canus* Merriam.

Onychomys torridus canus Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 124. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 742. Zoöl. Ser.

HOARY MOLE MOUSE.

Type locality. San Juan Capistrano, State of Zacatecas, Mexico.

Geogr. Distr. States of Zacatecas and San Luis Potosí, Mexico.

c. *Onychomys torridus arenicola* Mearns.

Onychomys torridus arenicola Mearns, Proc. U. S. Nat. Mus., 1897, p. 139. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 122. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 168. Zoöl. Ser.

SAND-LOVING MOLE MOUSE.

Type locality. Rio Grande, near El Paso, El Paso County, Texas.

Geogr. Distr. Texas into State of Chihuahua, Mexico.

d. *Onychomys torridus perpallidus* Mearns.

Onychomys torridus perpallidus Mearns, Proc. U. S. Nat. Mus., 1897, p. 140. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 122. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 168. Zoöl. Ser.

DRAB-GRAY MOLE MOUSE.

Type locality. Colorado River at Monument No. 204, Mexican boundary line, Yuma County, Arizona.

Geogr. Distr. Gila City, across Yuma and Colorado Deserts to the Coast Range.

261. *Onychomys fuliginosus* Merriam.

Onychomys fuliginosus Merr., N. Am. Faun., No. 3, 1890, p. 60.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 123. Zoöl. Ser.

DUSKY MOLE MOUSE.

Type locality. Black Tank lava beds, northeast of San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Arizona. Range unknown.

262. *Onychomys macrotis* Elliot.

Onychomys macrotis Elliot, Pub. Field Columb. Mus., III, 1903, p. 155. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 169. Zoöl. Ser.

LARGE-EARED MOLE MOUSE.

Type locality. Head of San Antonio River, Lower California, Mexico.

Geogr. Distr. San Quentin to San Antonio River, Trinidad Valley and plain of El Alamo to about 5,000 feet elevation in the San Pedro Martir Mountains, Lower California, Mexico.

263. *Onychomys pulcher* Elliot.

Onychomys pulcher Elliot, Pub. Field Columb. Mus., III, 1903, p. 243. Zoöl. Ser.

BEAUTIFUL MOLE MOUSE.

Type locality. Morongo Pass, San Bernardino Mountains, Riverside County, California.

Genl. Char. Size medium; color pale.

Color. Upper parts buff inclining to pinkish, darker on rump, where the tint becomes almost a salmon buff; nose, sides of face, lips, entire under parts, legs and feet pure white; tail above soiled white; sides and under parts white; ears whitish at base, probably flesh color in life, apical half brownish black. A tuft of whitish hairs covers the base of the ear. Orbital ring black.

Measurements. Total length, 150; tail vertebræ, 55; hind foot, 21; ear, 18.5. Skull: total length, 25.5; Hensel, 20; zygomatic width, 13.5; interorbital constriction, 5; length of nasals, 9; palatal length,

10; length of upper tooth row, 4; length of mandible, 15; length of lower tooth row, 4.

Genus 60. **Peromyscus.**

Peromyscus Gloger, Hand- u. Hilfsb. Naturg., I, 1841, pp. xxx, 95.

Type *Peromyscus arboreus* Gloger = *Mus sylvaticus noveboracensis* Fischer.

Calomys Aud. & Bach., Quad. N. Am., II, 1851, p. 303. (nec Waterhouse, 1837.)

Sitomys Fitzin., Sitzungsab. Math.-Nat. Cl. K. Akad. Wiss. Wien, LVI, 1867, p. 97.

**Vesperimus* Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 178.

Baiomys True, Proc. U. S. Nat. Mus., XVI, 1894, p. 758.

Trinodontomys Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 257.

Haplomylomys Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 53.

Subgenus A. **Baiomys.**

"Size very small. Ascending ramus of mandible short and erect. Condyle terminal coronoid process well developed, uncinate, and near condyle. Plantar tubercles six; soles hairy. Tail short."

264. Peromyscus taylori (Thomas).

Hesperomys taylori Thomas, Ann. Mag. Nat. Hist., 5th Ser., XIX, 1887, p. 66.

Peromyscus taylori Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 141. Zool. Ser.

TAYLOR'S MOUSE.

Type locality. San Diego, Duval County, Texas.

Geogr. Distr. Southern Texas.

265. Peromyscus allex Osgood.

Peromyscus allex Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 76. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 175. Zool. Ser.

DWARF MOUSE.

Type locality. Colima, State of Colima, Mexico.

Geogr. Distr. Unknown.

266. Peromyscus musculus (Merriam).

Sitomys musculus Merr., Proc. Biol. Soc. Wash., VIII, 1892, p. 170.

*A subgenus of *Hesperomys* Coues. (nec Waterhouse.)

Peromyscus musculus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 175. Zoöl. Ser.

COLIMA CITY MOUSE.

Type locality. Near Colima City, State of Colima, Mexico.

Geogr. Distr. States of Colima and Jalisco, Mexico.

a. Peromyscus musculus brunneus Allen & Chapman.

Peromyscus musculus brunneus Allen & Chapman, Bull. Am. Mus.

Nat. Hist. N. Y., 1897, p. 203. Elliot, Mamm. Middle Amer.

& W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 176. Zoöl. Ser.

JALAPA BROWN MOUSE.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz. Range unknown.

b. Peromyscus musculus nigrescens Osgood.

Peromyscus musculus nigrescens Osgood, Proc. Biol. Soc. Wash.,

XVII, 1904, p. 76. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 176. Zoöl. Ser.

SOOTY MOUSE.

Type locality. Valley of Comitán, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas. Range unknown.

267. *Peromyscus paulus* Allen.

Peromyscus paulus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903,

p. 598. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 176. Zoöl. Ser.

TINY MOUSE.

Type locality. Rio Sestín, State of Durango, Mexico.

Geogr. Distr. Known only from the type locality.

Subgenus B. *Haplomylomys*.

"Size medium or small; pelage soft and silky; tail longer than head and body, subterete, rather thinly haired; soles of hind feet naked (in median line) to calcaneum, six tuberculate and paved with minute imbricate scales; skull with cranium rather large and rostral region relatively weak; first and second upper molars with three salient and two reëntrant outer angles at all stages of wear; small secondary tubercles never present between outer primary tubercles; lower molars correspondingly simple."

268. *Peromyscus eremicus* (Baird).

Hesperomys eremicus Baird, N. Am. Mamm., 1857, p. 479.

Peromyscus eremicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 136. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 191. Zoöl. Ser.

DESERT MOUSE.

Type locality. Old Fort Yuma, San Diego County, California.

Geogr. Distr. New Mexico, Arizona, and California, into State of Sonora and Lower California, Mexico.

a. *Peromyscus eremicus arenarius* Mearns.

Peromyscus eremicus arenarius Mearns, Proc. U. S. Nat. Mus., 1896, p. 138. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 136. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 191.

SAND-LOVING MOUSE.

Type locality. Rio Grande near El Paso, El Paso County, Texas.

Geogr. Distr. Southern Texas and State of Chihuahua, Mexico.

b. *Peromyscus eremicus phæurus* Osgood.

Peromyscus eremicus phæurus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 75. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 191. Zoöl. Ser.

BLACK-TAILED MOUSE.

Type locality. Hacienda La Parada, State of San Luis Potosi, Mexico.

Geogr. Distr. Middle portion of tableland in the States of San Luis Potosi, Zacatecas, and Nuevo Leon, Mexico.

269. *Peromyscus propinquus* (Allen).

Peromyscus eremicus propinquus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 154.

Peromyscus propinquus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 185. Zoöl. Ser.

ALLIED DESERT MOUSE.

Type locality. San Pablo Point, San Pablo Bay, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico.

270. *Peromyscus anthonyi* (Merriam).

Hesperomys anthonyi Merr., Proc. Biol. Soc. Wash., IV, 1887, p. 5.

Peromyscus anthonyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 141. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 185. Zoöl. Ser.

ANTHONY'S MOUSE.

Type locality. Camp Apache, Grant County, New Mexico.

Geogr. Distr. New Mexico and Arizona.

271. *Peromyscus californicus* (Gambel).

Mus californicus Gambel, Proc. Acad. Nat. Scien. Phil., 1848, p. 78.

Peromyscus californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 137. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.
 Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 203. Zoöl. Ser.

CALIFORNIA MOUSE.

Type locality. Monterey, Monterey County, California.

Geogr. Distr. Coast region of California.

272. *Peromyscus goldmani* Osgood.

Peromyscus goldmani Osgood, Proc. Biol. Soc. Wash., XVII, 1904,
 p. 75. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
 Pub., IV, Pt. I, 1904, p. 186. Zoöl. Ser.

GOLDMAN'S MOUSE.

Type locality. Alamos, State of Sonora, Mexico.

Geogr. Distr. Known only from the type locality.

Subgenus C. *Peromyscus*.

273. *Peromyscus metallicola* Elliot.

Peromyscus metallicola Elliot, Pub. Field Columb. Mus., III, 1903,
 p. 245. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., IV, Pt. I, 1904, p. 192. Zoöl. Ser.

MINE-HAUNTING MOUSE.

Type locality. Providentia Mines, northwestern part of State of
 Sonora, Mexico.

Geogr. Distr. Known only from the type locality.

274. *Peromyscus niveiventris* (Chapman).

Hesperomys niveiventris Chapman, Bull. Am. Mus. Nat. Hist.
 N. Y., 1889, p. 117.

Peromyscus niveiventris Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 141. Zoöl. Ser.

WHITE-BELLIED MOUSE.

Type locality. Opposite Micco, Brevard County, Florida.

Geogr. Distr. Eastern part of the peninsula of Florida.

a. *Peromyscus niveiventris phasma* (Bangs).

Peromyscus phasma Bangs, Proc. Bost. Soc. Nat. Hist., 1898,
 p. 199. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
 p. 142. Zoöl. Ser.

Peromyscus niveiventris phasma Elliot, Pub. Field Columb. Mus.,
 III, 1901, p. 41. Zoöl. Ser. (June.)

ANASTASIA ISLAND MOUSE.

Type locality. Point Remo, Anastasia Island, St. John County,
 Florida.

Geogr. Distr. Known only from Anastasia Island.

275. *Peromyscus subgriseus* (Chapman).

Sitomys subgriseus Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 340.

Peromyscus subgriseus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 142. Zoöl. Ser.

CHAPMAN'S MOUSE.

Type locality. Gainesville, Alachua County, Florida.

Geogr. Distr. Central Florida.

a. *Peromyscus subgriseus rhoadsi* Bangs.

Peromyscus subgriseus rhoadsi Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 201. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 142. Zoöl. Ser.

RHOADS' MOUSE.

Type locality. Anclote River, Hillsboro County, Florida.

Geogr. Distr. Southwestern portion of the peninsula of Florida.

b. *Peromyscus subgriseus baliolus* Bangs.

Peromyscus subgriseus arenarius Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 202. (nec Mearns.)

Peromyscus subgriseus baliolus Bangs, Science, N. Ser., VIII, 1898, p. 214. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 142. Zoöl. Ser.

SWARTHY MOUSE.

Type locality. Hursman's Lake, Savannah River, near Bascom, Scriven County, Georgia.

Geogr. Distr. Sand hill region of northern Georgia and southern South Carolina.

276. *Peromyscus hemionotis* Elliot.

Peromyscus hemionotis Elliot, Pub. Field Columb. Mus., III, 1903, p. 157. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 199. Zoöl. Ser.

MULE-EARED MOUSE.

Type locality. Rosarito Divide, San Pedro Martir Mountains, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

277. *Peromyscus oresterus* Elliot.

Peromyscus oresterus Elliot, Pub. Field Columb. Mus., III, 1903, p. 159. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 200. Zoöl. Ser.

MOUNTAIN-LOVING MOUSE.

Type locality. Vallecitos, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 9,000 feet.

Geogr. Distr. San Pedro Martir and Hanson Laguna Ranges, Lower California, Mexico.

278. *Peromyscus leucopus* (Rafinesque).

Musculus leucopus Rafin., Am. Month. Mag., III, 1818, p. 446.

Mus agrarius americanus Kerr, Anim. Kingd., I, 1792, p. 231.

Peromyscus americanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 124, fig. 30. Zoöl. Ser.

Peromyscus leucopus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Suppl., p. 492. Zoöl. Ser.

WHITE-FOOTED DEER MOUSE.

Type locality. Pine Barrens of Kentucky.

Geogr. Distr. New Jersey to South Carolina, west to Mississippi, north to Minnesota.

a. *Peromyscus leucopus noveboracensis* (Fischer).

Mus sylvaticus noveboracensis Fisch., Syn. Mamm., 1829, p. 318.

Cricetus myoides Gapper, Zoöl. Journ., v, 1830, p. 204, pl. x.

Peromyscus leucopus myodes! Rhoads, Proc. Acad. Nat. Scien. Phil., 1897, p. 27.

Peromyscus americanus noveboracensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 125. Zoöl. Ser.

NORTHERN WHITE-FOOTED DEER MOUSE.

Type locality. New York State.

Geogr. Distr. From Lake Simcoe, Ontario and Digby, Nova Scotia, south through New York except in the boreal area of that state.

b. *Peromyscus leucopus deserticola* (Mearns).

Hesperomys leucopus deserticolus Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 285.

Peromyscus americanus deserticolus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 125. Zoöl. Ser.

Peromyscus texensis deserticola Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 188. Zoöl. Ser.

DESERT WHITE-FOOTED MOUSE.

Type locality. Mohave Desert, San Bernardino County, California.

Geogr. Distr. Desert region of California and Arizona.

c. *Peromyscus leucopus arizonæ* (Allen).

Sitomys americanus arizonæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 321.

Peromyscus americanus arizonæ Elliot, Syn. N. Am. Mamm. F. C. M. Pub., II, 1901, p. 125. Zoöl. Ser.

Peromyscus texensis arizonæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 186. Zool. Ser.

ARIZONA WHITE-FOOTED DEER MOUSE.

Type locality. Fairbank, Cochise County, Arizona.

Geogr. Distr. Mountains of Arizona; White, Chiricahua, and Graham Ranges.

d. *Peromyscus leucopus artemisiæ* (Rhoads).

Sitomys americanus artemisiæ Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 260.

Peromyscus americanus artemisiæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 126. Zool. Ser.

PACIFIC COAST WHITE-FOOTED DEER MOUSE.

Type locality. Ashcroft, British Columbia, Canada.

Geogr. Distr. Southern Idaho, western Washington, to British Columbia, Canada.

e. *Peromyscus leucopus minnesotæ* Mearns.

Peromyscus leucopus minnesotæ Mearns, Proc. Biol. Soc. Wash., XIV, 1901, p. 154.

MINNESOTA WHITE-FOOTED DEER MOUSE.

Type locality. Fort Snelling, Hennepin County, Minnesota.

Geogr. Distr. Minnesota. Range unknown.

Genl. Char. Like *P. leucopus*.

Color. Summer Pelage. Above light bistre lined with black, under parts gray; tail and feet nearly naked; tail beneath gray; ear sepia.

Winter Pelage. Above cinnamon lined with black, beneath white; ear light brown, with whitish tuft at base not always present; tail above blackish brown, beneath white; feet white.

Measurements. Total length, 175; tail vertebræ, 75; hind foot, 21.5; ear, 11.5. Skull: total length, 25; Hensel, 18; occipito-nasal length, 25; interorbital constriction, 4; zygomatic width, 13; palatal length, 10; length of nasals, 9; length of upper tooth row, 4; length of mandible, 15; length of lower tooth row, 4.

279. *Peromyscus sonoriensis* (Le Conte).

Hesperomys sonoriensis Le Conte, Proc. Acad. Nat. Scien. Phil., 1853, p. 413.

Peromyscus americanus sonoriensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 125. Zool. Ser.

Peromyscus leucopus sonoriensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 181, fig. xxxvii. Zool. Ser.

SONORA WHITE-FOOTED FIELD MOUSE.

Type locality. Santa Cruz, State of Sonora, Mexico.

Geogr. Distr. Arctic regions into Mexico, west of Rocky Mountains.

a. *Peromyscus sonoriensis blandus* Osgood.

Peromyscus sonoriensis blandus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 56.

Peromyscus leucopus blandus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 182. Zoöl. Ser.

GENTLE FIELD MOUSE.

Type locality. Escalon, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua. Range unknown.

b. *Peromyscus sonoriensis fulvus* Osgood.

Peromyscus sonoriensis fulvus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 57.

Peromyscus leucopus fulvus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 183. Zoöl. Ser.

FULVOUS FIELD MOUSE.

Type locality. Near Oaxaca City, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca. Range unknown.

280. *Peromyscus labecula* Elliot.

Peromyscus labecula Elliot, Pub. Field Columb. Mus., III, 1903, p. 143. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 178. Zoöl. Ser.

WHITE-SPOT FIELD MOUSE.

Type locality. Ocotlan, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco. Range unknown.

281. *Peromyscus tornillo* Mearns.

Peromyscus tornillo Mearns, Proc. U. S. Nat. Mus., 1896, p. 445.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 126.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 188. Zoöl. Ser.

RIO GRANDE WHITE-FOOTED MOUSE.

Type locality. Rio Grande, six miles above El Paso, El Paso County, Texas.

Geogr. Distr. State of Chihuahua, Mexico; north into Texas and New Mexico.

282. *Peromyscus rufinus* (Merriam).

Hesperomys leucopus rufinus Merr., N. Am. Faun., No. 3, 1890, p. 65, pl. 3.

Peromyscus rufinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 126. Zoöl. Ser.

TAWNY FIELD MOUSE.

Type locality. San Francisco Mountain, Coconino County, Arizona. Altitude, 9,000 feet.

Geogr. Distr. Northwestern Arizona to New Mexico, Utah, and Colorado.

283. *Peromyscus *gossypinus* (Le Conte).

Hesperomys gossypinus! Le Conte, Proc. Acad. Nat. Scien. Phil., 1853, p. 411.

Peromyscus gossypinus! Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 126. Zool. Ser.

COTTON TREE MOUSE.

Type locality. Near Riceboro, Liberty County, Georgia.

Geogr. Distr. North Florida to Bertie County, North Carolina, west to Alabama and Mississippi.

a. *Peromyscus gossypinus mississippiensis* Rhoads.

Peromyscus gossypinus mississippiensis Rhoads, Proc. Acad. Nat. Scien. Phil., 1896, p. 189. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 127. Zool. Ser.

TENNESSEE COTTON MOUSE.

Type locality. Samburg, Reelfoot Lake, Tennessee.

Geogr. Distr. Mississippi bottoms in Tennessee. Range unknown.

b. *Peromyscus gossypinus palmarius* Bangs.

Peromyscus gossypinus palmarius Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 124. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 127. Zool. Ser.

FLORIDA FIELD MOUSE.

Type locality. Oak Lodge, opposite Micco, Brevard County, Florida.

Geogr. Distr. Peninsula of Florida.

c. *Peromyscus gossypinus nigriculus* Bangs.

Peromyscus gossypinus nigriculus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 124. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 127. Zool. Ser.

LOUISIANA FIELD MOUSE.

Type locality. Burbridge, Plaquemines Parish, Louisiana.

Geogr. Distr. Bayou Region, Louisiana coast.

284. *Peromyscus anastasæ* Bangs.

Peromyscus anastasæ! Bangs, Proc. Bost. Soc. Nat. Hist., xxviii, 1898, p. 195.

**Gossypinus*, the cotton tree; also *gossypion*, nec *gossypinus!*

Peromyscus anastasiæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 128. Zoöl. Ser.

ANASTASIA ISLAND MOUSE.

Type locality. Point Romo, Anastasia Island, St. John's County, Florida.

Geogr. Distr. Anastasia Island, Florida.

285. *Peromyscus insulanus* Bangs.

Peromyscus insulanus Bangs, Proc. Bost. Soc. Nat. Hist., xxviii,
 1898, p. 196. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
 1901, p. 128. Zoöl. Ser.

CUMBERLAND ISLAND FIELD MOUSE.

Type locality. Cumberland Island, Camden County, Georgia.

Geogr. Distr. Known only from the type locality.

286. *Peromyscus canadensis* (Miller).

? *Hesperomys gracilis* Le Conte, Proc. Acad. Nat. Scien. Phil.,
 1855, p. 442.

Hesperomys myoides Baird, N. Am. Mamm., 1857, p. 472. (nec
 Gapper.)

Sitomys americanus canadensis Miller, Proc. Biol. Soc. Wash.,
 VIII, 1893, p. 55.

Peromyscus canadensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 128. Zoöl. Ser.

CANADIAN FIELD MOUSE.

Type locality. Peterboro, Madison County, New York.

Geogr. Distr. Spruce forests of New Brunswick, south to central
 New York and western Massachusetts.

a. *Peromyscus canadensis abietorum* Bangs.

Peromyscus canadensis abietorum Bangs, Proc. Biol. Soc. Wash., x,
 1896, p. 49. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
 1901, p. 128. Zoöl. Ser.

BANGS' FIELD MOUSE.

Type locality. Banks of James River, Nova Scotia.

Geogr. Distr. Nova Scotia. Range unknown.

b. *Peromyscus canadensis umbrinus* Miller.

Peromyscus canadensis umbrinus Miller, Proc. Bost. Soc. Nat.
 Hist., xxviii, 1897, p. 23. Elliot, Syn. N. Am. Mamm.,
 F. C. M. Pub., II, 1901, p. 129. Zoöl. Ser.

SHADED FIELD MOUSE.

Type locality. Peninsula Harbor, north shore of Lake Superior,
 Ontario, Canada.

Geogr. Distr. Unknown.

c. Peromyscus canadensis nubiterræ Rhoads.

Peromyscus canadensis nubiterræ Rhoads, Proc. Acad. Nat. Scien. Phil., 1896, p. 187. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 129. Zoöl. Ser.

ROAN MOUNTAIN MOUSE.

Type locality. Roan Mountain, Mitchell County, North Carolina.
Geogr. Distr. Summit of southern Alleghanies. Altitude, 6,370 feet.

287. *Peromyscus texensis* (Woodhouse).

Hesperomys texana! Woodh., Proc. Acad. Nat. Scien. Phil., 1853, p. 242.

Peromyscus texensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 130. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 186. Zoöl. Ser.

TEXAS FIELD MOUSE.

Type locality. Rio Grande near El Paso, El Paso County, Texas.
Geogr. Distr. Southern Texas into State of Chihuahua, Mexico.

a. Peromyscus texensis clementis Mearns.

Peromyscus texanus clementis Mearns, Proc. U. S. Nat. Mus., 1896, p. 446.

Peromyscus texensis clementis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 130. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 187. Zoöl. Ser.

SAN CLEMENTE ISLAND MOUSE.

Type locality. San Clemente Island, Los Angeles County, California.

Geogr. Distr. Coronados Islands, Mexico, and San Clemente Island, California.

b. Peromyscus texensis gambeli (Baird).

Hesperomys gambelii Baird, N. Am. Mamm., 1857, p. 464.

Peromyscus texensis gambeli Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 130. Zoöl. Ser.

GAMBEL'S MOUSE.

Type locality. Monterey, Monterey County, California.

Geogr. Distr. California, Nevada, Oregon, and Washington.

c. Peromyscus texensis saturatus Bangs.

Peromyscus texanus saturatus Bangs, Amer. Nat., xxxi, 1897, p. 75.

Peromyscus texensis saturatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 131. Zoöl. Ser.

RICH-COLORED MOUSE.

Type locality. Saturna Island, Gulf of Georgia, British Columbia, Canada.

Geogr. Distr. Unknown.

d. *Peromyscus texensis arcticus* (Mearns).

Hesperomys leucopus arcticus Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 285.

Peromyscus texensis arcticus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 131. Zoöl. Ser.

ARCTIC FIELD MOUSE.

Type locality. Fort Simpson, Mackenzie, Canada.

Geogr. Distr. Hudson Bay to Rocky Mountains.

e. *Peromyscus texensis subarcticus* Allen.

Peromyscus texanus subarcticus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 15.

Peromyscus texensis subarcticus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 131. Zoöl. Ser.

SUBARCTIC FIELD MOUSE.

Type locality. Deerlodge County, Montana.

Geogr. Distr. From Utah and Colorado, through Wyoming, the Dakotas, and Montana to the Saskatchewan Valley, Alberta, Canada.

f. *Peromyscus texensis nebrascensis* (Mearns).

Hesperomys leucopus nebrascensis Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 287.

Peromyscus texensis nebrascensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 130. Zoöl. Ser.

NEBRASKA FIELD MOUSE.

Type locality. Calf Creek, central Montana.

Geogr. Distr. From Kansas and Nebraska, through the Dakotas and Wyoming into Montana.

g. *Peromyscus texensis thurberi* (Allen).

Sitomys americanus thurberi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 185.

Peromyscus texanus medius Mearns, Proc. U. S. Nat. Mus., 1896, p. 446.

Peromyscus texensis medius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 130. Zoöl. Ser.

Peromyscus thurberi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 176. Zoöl. Ser.

THURBER'S FIELD MOUSE.

Type locality. San Pedro Martir Mountains, Lower California.

Geogr. Distr. Region of San Pedro Martir Mountains, Lower California, Mexico, north into southern California to Colorado desert and possibly further.

h. Peromyscus texensis flaccidus Allen.

Peromyscus texanus flaccidus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 599.

Peromyscus texensis flaccidus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 187. Zoöl. Ser.

FEEBLE MOUSE.

Type locality. Rio Sestin, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico. Range unknown.

i. Peromyscus texensis coolidgei (Thomas).

Peromyscus leucopus coolidgei Thomas, Ann. Mag. Nat. Hist., 7th Ser., I, 1898, p. 45.

Peromyscus texensis coolidgei Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 187. Zoöl. Ser.

COOLIDGE'S FIELD MOUSE.

Type locality. Santa Anita, Cape Region, Lower California.

Geogr. Distr. Cape Region, Lower California.

j. Peromyscus texensis mesomelas Osgood.

Peromyscus texanus mesomelas Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 57.

Peromyscus thurberi mesomelas Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 177. Zoöl. Ser.

OSGOOD'S FIELD MOUSE.

Type locality. Orizaba, State of Vera Cruz, Mexico.

Geogr. Distr. Known only from the type locality.

k. Peromyscus texensis castaneus Osgood.

Peromyscus texanus castaneus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 58.

Peromyscus thurberi castaneus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 177. Zoöl. Ser.

YOHALTUN FIELD MOUSE.

Type locality. Yohaltun, State of Campeche, Mexico.

Geogr. Distr. Known only from the type locality.

288. *Peromyscus luteus* Osgood.

Peromyscus luteus Osgood, Proc. Biol. Soc. Wash., XVIII, 1905, p. 77.

BUFF MOUSE.

Type locality. Kennedy, Nebraska.

Geogr. Distr. Western Nebraska and adjacent regions.

Color. "Upper parts bright ochraceous buff very lightly mixed with dusky; subauricular spots pure white, large, and conspicuous; under parts pure white."

Measurements. "Total length. 152; tail vertebræ, 62; hind foot, 20."

289. *Peromyscus exiguus* Allen.

Peromyscus exiguus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 157. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 183. Zoöl. Ser.

SAN MARTIN ISLAND MOUSE.

Type locality. San Martin Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

290. *Peromyscus akeleyi* Elliot.

Peromyscus akeleyi Elliot, Pub. Field Columb. Mus., I, 1899, p. 226. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 129. Zoöl. Ser.

AKELEY'S FIELD MOUSE.

Type locality. Johnson's Ranch, Elwah River, Clallam County, Washington.

Geogr. Distr. Region of Olympic Mountains, Washington.

291. *Peromyscus homochroia* Elliot.

Peromyscus homochroia Elliot, Pub. Field Columb. Mus., III, 1903, p. 158. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 200. Zoöl. Ser.

SAN QUENTIN MOUSE.

Type locality. San Quentin, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

292. *Peromyscus gaurus* Elliot.

Peromyscus gaurus Elliot, Pub. Field Columb. Mus., III, 1903, p. 157. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 199. Zoöl. Ser.

FRISKY MOUSE.

Type locality. San Antonio, San Pedro Martir Mountains, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

293. *Peromyscus maniculatus* (Wagner).

Hesperomys maniculatus Wagn., Archiv für Naturg., XI, Band I, 1845, p. 148.

Peromyscus maniculatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 131. Zoöl. Ser.

WAGNER'S FIELD MOUSE.

Type locality. Labrador.

Geogr. Distr. Range unknown.

294. *Peromyscus catalinæ* Elliot.

Peromyscus catalinæ Elliot, Pub. Field Columb. Mus., III, 1903,
p. 160. Zoöl. Ser.

CATALINA ISLAND MOUSE.

Type locality. Santa Catalina Island, Santa Barbara Islands, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size of *P. t. gambeli*, but with longer tail, ears, and feet.

Color. Upper parts grayish buff lined with black, lower back darkest; rump grayish buff; cheeks, nose, and sides buff; upper lip, lower sides of face, entire under parts, hands, and feet pure white; tail above dusky, beneath white; ears brownish black.

Measurements. Total length, 176; tail vertebræ, 92; hind foot, 23; ear, 18. Skull: occipito-nasal length, 25; Hensel, 19; zygomatic width, 13; interorbital constriction, 4; mastoid width, 10.2; length of nasals, 8; width of braincase, 10; length of upper tooth row, 3.

295. *Peromyscus austerus* (Baird).

Hesperomys austerus Baird, Proc. Acad. Nat. Scien. Phil., 1855,
p. 336.

Peromyscus austerus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 132. Zoöl. Ser.

TROUBLESOME FIELD MOUSE.

Type locality. Spokane Plain, Spokane County, Washington.

Geogr. Distr. Pacific coast, California to Washington.

296. *Peromyscus perimecurus* Elliot.

Peromyscus perimecurus Elliot, Pub. Field Columb. Mus., III,
1903, p. 156. Zoöl. Ser.

LONG-TAILED MOUSE.

Type locality. Goldbeach, Curry County, Oregon.

Geogr. Distr. Coast region of Oregon.

Genl. Char. Similar to *P. austerus* but larger and lighter in color; tail very long. Skull with larger bullæ, wider pterygoid fossa, and narrower rostrum.

Color. Back of head and dorsal region buff lined with black; fore part of head, nose, sides of head and body grayish buff; lateral line bright buff; lips and under parts plumbeous washed with white; hands and feet white; tail brown above, flesh color beneath, end

black; ear inside orange at base, rest black, outside pale brown on basal half, rest blackish with white edge.

Measurements. Total length, 220; tail vertebræ, 116; hind foot, 23; ear, 19. Skull: occipito-nasal length, 25.5; Hensel, 19; zygomatic width, 12; interorbital constriction, 4; palatal length, 9.5; width of braincase, 11.5; length of nasals, 9.5; width of rostrum, 3; length of upper tooth row, 3; length of mandible, 11.5; height at condyle, 4.5.

297. *Peromyscus mearnsi* (Allen).

Vesperimus mearnsii Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 300.

Peromyscus mearnsi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 132. Zoöl. Ser.

MEARNS' FIELD MOUSE.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Texas to Arizona.

298. *Peromyscus canus* Mearns.

Peromyscus canus Mearns, Proc. U. S. Nat. Mus., 1896, p. 445.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 132. Zoöl. Ser.

HOARY FIELD MOUSE.

Type locality. Fort Clark, Kinney County, Texas.

Geogr. Distr. Texas to Oklahoma Territory.

299. *Peromyscus boylii* (Baird).

Hesperomys boylii Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 335.

Sitomys gilberti Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 188.

Peromyscus boylii Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 132. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 195. Zoöl. Ser.

BOYLE'S FIELD MOUSE.

Type locality. American River, Eldorado County, California.

Geogr. Distr. Central and eastern California.

a. *Peromyscus boylii penicillatus* Mearns.

Peromyscus boylii penicillatus Mearns, Proc. U. S. Nat. Mus., 1896, p. 139. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,

1901, p. 133. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 196. Zoöl. Ser.

PENCILED FIELD MOUSE.

Type locality. Foothills of Franklin Mountains, near El Paso, El Paso County, Texas.

Geogr. Distr. Northwestern Texas.

300. *Peromyscus rowleyi* (Allen).

Sitomys rowleyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 76.

Peromyscus rowleyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 134. Zoöl. Ser.

ROWLEY'S FIELD MOUSE.

Type locality. Nolan's Ranch, San Juan County, Utah.

Geogr. Distr. Utah to Arizona.

a. *Peromyscus rowleyi pinalis* (Miller).

Sitomys rowleyi pinalis Miller, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 331.

Peromyscus rowleyi pinalis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 135. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 189. Zoöl. Ser.

ROWLEY'S PINE MOUSE.

Type locality. Granite Gap, Grant County, New Mexico.

Geogr. Distr. State of Sonora, Mexico, north to New Mexico and Arizona.

301. *Peromyscus parasiticus* Elliot.

Peromyscus parasiticus Elliot, Pub. Field Columb. Mus., III, 1903, p. 244. Zoöl. Ser.

PARASITE MOUSE.

Type locality. Lone Pine, Inyo County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *P. r. pinalis*, but larger in all of its dimensions. Skull with larger rostrum, longer nasals, broader between orbits, and larger, differently shaped braincase.

Color. Top of head and dorsal region dusky cinnamon, becoming pale cinnamon on sides of face beneath eyes; shoulders, flanks, and sides of rump, lips, sides of nose, lower part of flanks, thighs, hands, and feet and entire under parts white; base of fur plumbeous; tail above dusky, beneath yellowish white.

Measurements. Total length, 214; tail vertebræ, 119; hind foot, 23.5; ear, 20.5. Skull: total length, 28; Hensel, 19; zygomatic width, 13; interorbital constriction, 4.5; width of braincase, 12.5; length of braincase, 14; palatal length, 11; length of nasals, 11; length of upper tooth row, 4; length of mandible, 16; length of lower tooth row, 4.

302. *Peromyscus keeni* (Rhoads).

Sitomys keeni Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 258.

Peromyscus keeni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 133. Zoöl. Ser.

KEEN'S MOUSE.

Type locality. Masset, Graham Island, Queen Charlotte Islands, British Columbia, Canada.

Geogr. Distr. Known only from the type locality.

303. *Peromyscus macrorhinus* (Rhoads).

Sitomys macrorhinus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 259.

Peromyscus macrorhinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 133. Zoöl. Ser.

LONG-NOSED MOUSE.

Type locality. Skeena River, British Columbia, Canada.

Geogr. Distr. British Columbia, Canada, possibly south into Washington.

304. *Peromyscus prevostensis* Osgood.

Peromyscus prevostensis Osgood, N. Am. Faun., No. 21, 1901, p. 29.

PREVOST ISLAND MOUSE.

Type locality. Prevost Island, Queen Charlotte Islands, British Columbia, Canada.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *P. sitkensis*, tail shorter; nasals shorter; posterior palatine foramina much longer.

Color. In front of and around eyes black; faint dusky dorsal stripe; beneath grayish white; occasionally a buff stripe in center of the breast; hind feet dusky; tail bicolor.

Measurements. "Average of 47 adults, total length, 217; tail vertebræ, 104; hind foot, 26." (Osgood.)

305. *Peromyscus sitkensis* Merriam.

Peromyscus sitkensis Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 223. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 134. Zoöl. Ser.

SITKA MOUSE.

Type locality. Sitka, Alaska.

Geogr. Distr. Baranof Island, Alaska.

306. *Peromyscus oreas* Bangs.

Peromyscus oreas Bangs, Proc. Biol. Soc. Wash., XII, 1898, p. 84.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 134.

Zoöl. Ser.

MOUNTAIN MOUSE.

Type locality. Mount Baker Range, British Columbia, Canada, near Whatcom County, Washington.

Geogr. Distr. Higher mountains of northern Washington and southern British Columbia.

a. Peromyscus oreas rubidus Osgood.

Peromyscus oreas rubidus Osgood, Proc. Biol. Soc. Wash., xiv, 1901, p. 193.

REDDISH MOUSE.

Type locality. Mendocino City, Mendocino County, California.

Geogr. Distr. Coast region of California and southern Oregon, south to Cazadero, California, in the red wood strip.

Genl. Char. Similar to *P. oreas*, tail shorter; hind foot smaller.

Color. Summer Pelage. Above and on sides brownish fawn; dorsal line dark; under parts white; ears edged with white; tail bicolor.

Measurements. Total length, 180-203; tail vertebræ, 90-100; hind foot, 21-22.

307. *Peromyscus auripectus* (Allen).

Sitomys auripectus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 75.

Peromyscus auripectus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 134. Zoöl. Ser.

GOLDEN BREASTED MOUSE.

Type locality. Bluff City, San Juan County, Utah.

Geogr. Distr. Utah, Arizona, and New Mexico.

308. *Peromyscus stephensi* Mearns.

Peromyscus stephensi Mearns, Proc. U. S. Nat. Mus., 1897, p. 721.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 136.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. 1, 1904, p. 190. Zoöl. Ser.

**Peromyscus petræus* Elliot, Pub. Field Columb. Mus., 111, 1903, p. 244. Zoöl. Ser.

STEPHENS' MOUSE.

Type locality. Wagon-road in cañon at east base of the Coast Range, San Diego County, southern California.

Geogr. Distr. From San Diego County and Palm Springs, Riverside County, to Lone Pine, Inyo County.

309. *Peromyscus polius* Osgood.

Peromyscus polius Osgood, Proc. Biol. Soc. Wash., xvii, 1904,

p. 61. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. 1, 1904, p. 196. Zoöl. Ser.

*Mr. W. H. Osgood kindly compared my specimens with the type of *P. stephensi* in Coll. Biol. Survey, Wash., and advised me they were of the same species.

GRIZZLED MOUSE.

Type locality. Colonia Garcia, State of Chihuahua, Mexico.

Geogr. Distr. Known only from the type locality.

310. *Peromyscus attwateri* Allen.

Peromyscus attwateri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 330. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 135. Zoöl. Ser.

ATTWATER'S FIELD MOUSE.

Type locality. Turtle Creek, Kerr County, Texas.

Geogr. Distr. Texas to Indian Territory.

a. *Peromyscus attwateri pectoralis* Osgood.

Peromyscus attwateri pectoralis Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 59. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 192. Zoöl. Ser.

JALAPAN MOUSE.

Type locality. Jalapan, State of Queretaro, Mexico.

Geogr. Distr. State of Queretaro, Mexico. Range unknown.

b. *Peromyscus attwateri eremicoides* Osgood.

Peromyscus attwateri eremicoides Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 60. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 192. Zoöl. Ser.

ALLIED FIELD MOUSE.

Type locality. Mapimi, State of Durango, Mexico.

Geogr. Distr. Unknown.

311. *Peromyscus bellus* Bangs.

Peromyscus bellus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 137. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 135. Zoöl. Ser.

BEAUTIFUL MOUSE.

Type locality. Stillwell, Boston Mountains, Indian Territory.

Geogr. Distr. Known only from the type locality.

312. *Peromyscus insolatus* (Rhoads).

Sitomys insolatus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 256.

Peromyscus insolatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 135. Zoöl. Ser.

SUNNY MOUSE.

Type locality. Oro Grande, Mohave Desert, Kern County, California.

Geogr. Distr. Mohave Desert, California. Range unknown.

313. *Peromyscus fraterculus* (Miller).

Vesperimus fraterculus Miller, Amer. Nat., xxvi, 1892, p. 261.

Peromyscus fraterculus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 136. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 184. Zoöl. Ser.

RELATED WHITE-FOOTED MOUSE.

Type locality. Dulzura, San Diego County, California.

Geogr. Distr. Southern California into Lower California, Mexico.

314. *Peromyscus cedrosensis* Allen.

Peromyscus cedrosensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 154. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 185. Zoöl. Ser.

CERROS ISLAND MOUSE.

Type locality. Cerros or Cedros Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

315. *Peromyscus major* (Rhoads).

Sitomys major Rhoads, Amer. Nat., xxvii, 1893, p. 831.

Peromyscus major Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 137. Zoöl. Ser.

SQUIRREL INN MOUSE.

Type locality. Squirrel Inn, San Bernardino County, California.

Geogr. Distr. Southern California. Range unknown.

316. *Peromyscus herroni* (Rhoads).

Sitomys herronii Rhoads, Amer. Nat., xxvii, 1893, p. 832.

Peromyscus herroni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 137. Zoöl. Ser.

HERRON'S FIELD MOUSE.

Type locality. San Bernardino Valley, California.

Geogr. Distr. Southern California.

a. *Peromyscus herroni nigellus* (Rhoads).

Sitomys herroni nigellus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 257.

Peromyscus herroni nigellus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 137. Zoöl. Ser.

DARK FIELD MOUSE.

Type locality. West Cajon Pass, San Bernardino Mountains, San Bernardino County, California.

Geogr. Distr. High mountains, southern California.

317. *Peromyscus insignis* Rhoads.

Peromyscus insignis Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 33. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 138. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 203. Zoöl. Ser.

SACHEM OR CHIEF MOUSE.

Type locality. Dulzura, San Diego County, California.

Geogr. Distr. Southern California into Lower California, Mexico.

318. *Peromyscus dyselius* Elliot.

Peromyscus dyselius Elliot, Pub. Field Columb. Mus., 1, 1898,

p. 207. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 138. Zoöl. Ser.

BLACKISH FIELD MOUSE.

Type locality. Portola, San Mateo County, California.

Geogr. Distr. Coast region of California south of San Francisco.

319. *Peromyscus robustus* (Allen).

Sitomys robustus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893,

p. 335.

Peromyscus robustus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 138. Zoöl. Ser.

ROBUST FIELD MOUSE.

Type locality. Lakeport, Lake County, California.

Geogr. Distr. Unknown.

320. *Peromyscus floridanus* (Chapman).

Hesperomys floridanus Chapman, Bull. Am. Mus. Nat. Hist.

N. Y., 1889, p. 117.

Peromyscus floridanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 138. Zoöl. Ser.

FLORIDA FIELD MOUSE.

Type locality. Gainesville, Alachua County, Florida.

Geogr. Distr. Florida Peninsula.

321. *Peromyscus spicilegus* Allen.

Peromyscus spicilegus Allen, Bull. Am. Mus. Nat. Hist. N. Y.,

1897, p. 50. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 179. Zoöl. Ser.

JALISCO SMALL-EARED MOUSE.

Type locality. Mineral San Sebastian, Mascota, State of Jalisco, Mexico.

Geogr. Distr. States of Jalisco and Sinaloa. Range unknown.

a. *Peromyscus spicilegus evides* Osgood.

Peromyscus spicilegus evides Osgood, Proc. Biol. Soc. Wash.,

xvii, 1904, p. 64. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 179. Zoöl. Ser.

JUQUILA MOUSE.

Type locality. Juquila, State of Oaxaca, Mexico.

Geogr. Distr. Known only from the type locality.

b. *Peromyscus spicilegus simulus* Osgood.

Peromyscus spicilegus simulus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 64. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 180. Zoöl. Ser.

MIMIC MOUSE.

Type locality. San Blas, Territorio de Tepic, Mexico.

Geogr. Distr. Lowlands of Territorio de Tepic, Mexico. Range unknown.

322. *Peromyscus megalotis* (Merriam).

Hesperomys megalotis Merr., N. Am. Faun., No. 3, 1890, p. 64.

Peromyscus megalotis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 139. Zoöl. Ser.

BIG-EARED MOUSE.

Type locality. Black Tank, Desert of the Little Colorado, Cocino County, Arizona.

Geogr. Distr. Desert of the Little Colorado, Arizona.

323. *Peromyscus montipinoris* Elliot.

Peromyscus montipinoris Elliot, Pub. Field Columb. Mus., III, 1904, p. 264. Zoöl. Ser.

MOUNT PINOS MOUSE.

Type locality. Mount Pinos, Lockwood Valley, Ventura County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size medium; tail very long, hairy, penicillate; ears large; hind foot long; color pale; skull similar to that of *P. truei*, but with longer nasals, broader and longer braincase, and narrower inter-orbital region.

Color. Top of head and back mixed cinereous and buff, darker than rest of upper parts; upper sides buffy; entire under parts, hands, and feet white; ankles dusky; tail above black, beneath yellowish white; ears dark brown.

Measurements. Total length, 214; tail vertebræ, 118; hind foot, 24.5; ear, 24.5. Skull: occipito-nasal length, 28; Hensel, 22; inter-orbital constriction, 4.5; zygomatic width, 13; width of braincase, 13; length of nasals, 10; palatal length, 11; length of upper tooth row, 4; length of mandible, 12; length of lower tooth row, 4.

324. *Peromyscus lasius* Elliot.

Peromyscus lasius Elliot, Pub. Field Columb. Mus., III, 1904, p. 265. Zoöl. Ser.

WOOLLY MOUSE.

Type locality. Hannopee Cañon, Panamint Mountains, Inyo County, California.

Geogr. Distr. Panamint and Inyo Mountains, California.

Genl. Char. Allied to *P. megalotis* and *P. truei*; colors pale; tail long; skull heavy; rostrum long.

Color. Nose and sides of face gray tinged with buff; orbital ring black; top of head and upper part of body pale ochraceous buff, mixed slightly with black on dorsal region; sides, and lateral line from beneath eyes to root of tail, ochraceous buff; entire under parts, hands, and feet pure white; under fur plumbeous; tail hairy, penicillate, with a pale dusky line above, remainder white; ears large, naked, dusky brown.

Measurements. Total length, 208; tail vertebræ, 105; hind foot, 24; ear from notch, 27.5. Skull: total length, 29; Hensel, 21.5; zygomatic width, 14; interorbital constriction, 4; length of nasals, 9.5; length of braincase, 18.5; width of braincase above root of zygomatic, 13.5; palatal length, 11; length of upper tooth row, 4; length of mandible, 12.5; length of lower tooth row, 4.

325. Peromyscus difficilis (Allen).

Vesperimus difficilis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 298.

Peromyscus difficilis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 193. Zoöl. Ser.

TROUBLESOME MOUSE.

Type locality. Sierra de Valparaiso, State of Zacatecas, Mexico.

Geogr. Distr. State of Zacatecas, Mexico. Range unknown.

326. Peromyscus bullatus Osgood.

Peromyscus bullatus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 63. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 193. Zoöl. Ser.

PEROTE MOUSE.

Type locality. Perote, State of Vera Cruz, Mexico.

Geogr. Distr. Known only from the type locality.

327. Peromyscus sagax Elliot.

Peromyscus sagax Elliot, Pub. Field Columb. Mus., III, 1903, p. 142. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 194. Zoöl. Ser.

LA PALMA FIELD MOUSE.

Type locality. La Palma, State of Michoacan, Mexico.

Geogr. Distr. Unknown.

328. *Peromyscus truei* (Shufeldt).

Hesperomys truei Shufeldt, Proc. U. S. Nat. Mus., 1886, p. 407,
pl. XXI, figs. 1, 5, 8.

Peromyscus truei Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 139. Zool. Ser.

TRUE'S MOUSE.

Type locality. Fort Wingate, Valencia County, New Mexico.

Geogr. Distr. Nevada, Utah, and New Mexico.

a. *Peromyscus truei nasutus* (Allen).

Vesperimus nasutus Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1891, p. 299.

Peromyscus truei nasutus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 139. Zool. Ser.

LARGE-NOSED MOUSE.

Type locality. Estes Park, Larimer County, Colorado.

Geogr. Distr. Colorado.

b. *Peromyscus truei crinitus* (Merriam).

Hesperomys crinitus Merr., N. Am. Faun., No. 5, 1891, p. 53,
fig. 3.

Peromyscus truei crinitus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 140. Zool. Ser.

LONG-HAIRED MOUSE.

Type locality. Shoshone Falls, Snake River, Lincoln County,
Idaho.

Geogr. Distr. Idaho. Range undetermined.

c. *Peromyscus truei scitulus* (Bangs).

Peromyscus crinitus scitulus Bangs, Proc. N. Engl. Zool. Club, 1,
1899, p. 67.

Peromyscus truei scitulus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, Append., p. 429. Zool. Ser.

NEAT FIELD MOUSE.

Type locality. Gardnerville, Douglas County, Nevada.

Geogr. Distr. Nevada. Range unknown.

329. *Peromyscus martirensis* (Allen).

Sitomys martirensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893,
p. 187.

Peromyscus martirensis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 189. Zool. Ser.

SAN PEDRO MARTIR MOUNTAINS MOUSE.

Type locality. San Pedro Martir Mountains, Lower California,
Mexico. Altitude, above 5,000 feet.

Geogr. Distr. San Pedro Martir and Hanson Laguna Mountains, Lower California, Mexico.

330. *Peromyscus nuttalli* (Harlan).

Arvicola nuttalli Harlan, Am. Month. Journ. Geol. & Nat. Scien. Phil., 1832, p. 446.

Peromyscus nuttalli Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 140. Zoöl. Ser.

NUTTALL'S GOLDEN MOUSE.

Type locality. Norfolk, Norfolk County, Virginia.

Geogr. Distr. Southern Virginia, North and South Carolina, and Georgia.

331. *Peromyscus cherrii* (Allen).

Hesperomys cherrii Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 211.

Peromyscus cherrii, Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 183. Zoöl. Ser.

CHERRIE'S COSTA RICA MOUSE.

Type locality. La Carpintera, Costa Rica.

Geogr. Distr. Costa Rica, Central America.

332. *Peromyscus michiganensis* (Audubon & Bachman).

Mus michiganensis Aud. & Bachm., Jour. Acad. Nat. Scien. Phil., 1842, p. 304.

Peromyscus michiganensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 140. Zoöl. Ser.

MICHIGAN FIELD MOUSE.

Type locality. Erie County, Ohio.

Geogr. Distr. Indiana north to Minnesota and Dakota, and west and south to Kansas.

a. *Peromyscus michiganensis pallescens* Allen.

Peromyscus michiganensis pallescens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1896, p. 238. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 140. Zoöl. Ser.

PALE MICHIGAN MOUSE.

Type locality. San Antonio, Bexar County, Texas.

Geogr. Distr. Texas.

333. *Peromyscus tiburonensis* Mearns.

Peromyscus tiburonensis Mearns, Proc. U. S. Nat. Mus., 1897, p. 720. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 175. Zoöl. Ser.

ISLAND OF TIBURON MOUSE.

Type locality. Tiburon Island, Gulf of California. Mexico.

Geogr. Distr. Known only from the type locality.

334. *Peromyscus ceciliae* Thomas.

Peromyscus ceciliae Thomas, Ann. Mag. Nat. Hist., 7th Ser., xi, 1903, p. 486. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 178. Zool. Ser.

CECIL'S MOUSE.

Type locality. Santa Barbara Camp, southern slope of Mt. Orizaba, State of Vera Cruz, Mexico. Altitude, 12,500 feet.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

335. *Peromyscus melanotis* Allen & Chapman.

Peromyscus melanotis Allen & Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 203. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 178. Zool. Ser.

BLACK-EARED FIELD MOUSE.

Type locality. Las Vigas, State of Vera Cruz, Mexico.

Geogr. Distr. Range unknown.

a. *Peromyscus melanotis zamelas* Osgood.

Peromyscus melanotis zamelas Osgood, Proc. Biol. Soc. Wash., xvii, 1904, p. 59. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 179. Zool. Ser.

JET MOUSE.

Type locality. Colonia Garcia, State of Chihuahua, Mexico. Altitude, 6,700 feet.

Geogr. Distr. Range undetermined.

336. *Peromyscus affinis* (Allen).

Hesperomys affinis Allen, Proc. U. S. Nat. Mus., 1891, p. 195.

Peromyscus affinis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 180. Zool. Ser.

ALLIED FIELD MOUSE.

Type locality. Barrio, State of Oaxaca, Mexico.

Geogr. Distr. Southeastern Mexico.

a. *Peromyscus affinis musculoides* (Merriam).

Peromyscus musculoides Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 124. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 180. Zool. Ser.

ALLIED HOUSE MOUSE.

Type locality. Cuicatlan, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

337. *Peromyscus cozumelæ* Merriam.

Peromyscus cozumelæ Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 103. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 181. Zoöl. Ser.

ISLAND OF COZUMEL MOUSE.

Type locality. Island of Cozumel, Yucatan, Mexico.

Geogr. Distr. Known only from the type locality.

338. *Peromyscus geronimensis* Allen.

Peromyscus geronimensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 156. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 181. Zoöl. Ser.

SAN GERONIMO ISLAND FIELD MOUSE.

Type locality. San Geronimo Island, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico.

339. *Peromyscus dubius* Allen.

Peromyscus dubius Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 157. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 181. Zoöl. Ser.

TODOS SANTOS ISLAND MOUSE.

Type locality. Todos Santos Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

340. *Peromyscus aztecus* (Saussure).

Hesperomys aztecus Sauss., Rev. Mag. Zool., 2me Sér., xii, 1860, p. 105.

Peromyscus aztecus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 184. Zoöl. Ser.

AZTEC MOUSE.

Type locality. "Mexico."

Geogr. Distr. Cape St. Lucas, Lower California, and Sierra de Juanacutlan, State of Jalisco, Mexico. Limits of range unknown.

341. *Peromyscus beatae* Thomas.

Peromyscus beatae Thomas, Ann. Mag. Nat. Hist., 7th Ser., xi, 1903, p. 485. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 184. Zoöl. Ser.

XOMETLA MOUSE.

Type locality. Xometla Camp, Mt. Orizaba, State of Vera Cruz, Mexico.

Geogr. Distr. Known only from the type locality.

342. *Peromyscus gymnotis* Thomas.

Peromyscus gymnotis Thomas, Ann. Mag. Nat. Hist., 6th Ser., xiv, 1894, p. 365. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 188. Zoöl. Ser.

NAKED-EARED MOUSE.

Type locality. Guatemala.

Geogr. Distr. Guatemala, Central America.

343. *Peromyscus banderanus* Allen.

Peromyscus banderanus Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1897, p. 51. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 189. Zoöl. Ser.

BANDERAS FIELD MOUSE.

Type locality. Terro Tepic, Valle de Banderas, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco. Range unknown.

a. *Peromyscus banderanus vicinior* Osgood.

Peromyscus banderanus vicinior Osgood, Proc. Biol. Soc. Wash.,
xvii, 1904, p. 68. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 190. Zoöl. Ser.

LA SALADA DEER MOUSE.

Type locality. La Salada, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan. Range unknown.

b. *Peromyscus banderanus angelensis* Osgood.

Peromyscus banderanus angelensis Osgood, Proc. Biol. Soc. Wash.,
xvii, 1904, p. 69. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 190. Zoöl. Ser.

PUERTO ANGEL MOUSE.

Type locality. Puerto Angel, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

344. *Peromyscus yucatanicus* Allen & Chapman.

Peromyscus yucatanicus Allen & Chapman, Bull. Am. Mus. Nat.
Hist. N. Y., 1897, p. 8. Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 194. Zoöl. Ser.

YUCATAN MOUSE.

Type locality. Chichen Itza, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico.

a. *Peromyscus yucatanicus badius* Osgood.

Peromyscus yucatanicus badius Osgood, Proc. Biol. Soc. Wash.,
xvii, 1904, p. 70. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 194. Zoöl. Ser.

APAZOTE MOUSE.

Type locality. Apazote, State of Campeche, Mexico.

Geogr. Distr. State of Campeche. Range unknown.

345. *Peromyscus cineritius* Allen.

Peromyscus cineritius Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 155. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 195. Zoöl. Ser.

ASHY GRAY FIELD MOUSE.

Type locality. San Roque Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

346. *Peromyscus levipes* Merriam.

Peromyscus levipes Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 123. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 195. Zoöl. Ser.

MOUNT MALINCHE MOUSE.

Type locality. Mount Malinche, State of Tlaxcala, Mexico. Altitude, 8,400 feet.

Geogr. Distr. Limits of range unknown.

347. *Peromyscus gratus* Merriam.

Peromyscus gratus Merr., Proc. Biol. Soc. Wash., x, 1898, p. 123. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 196. Zoöl. Ser.

TLALPAM FIELD MOUSE.

Type locality. Tlalpam, Valley of Mexico.

Geogr. Distr. State of Mexico. Range unknown.

a. *Peromyscus gratus gentilis* Osgood.

Peromyscus gratus gentilis Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 61. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 197. Zoöl. Ser.

FOREIGN MOUSE.

Type locality. Lagos, State of Jalisco, Mexico.

Geogr. Distr. Limits of range unknown.

348. *Peromyscus pavidus* Elliot.

Peromyscus pavidus Elliot, Pub. Field Columb. Mus., III, 1903, p. 142. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 197. Zoöl. Ser.

SHY FIELD MOUSE.

Type locality. Patzcuaro, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, Mexico. Range unknown.

349. *Peromyscus madrensis* Merriam.

Peromyscus madrensis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 16. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 197. Zoöl. Ser.

MARIA MADRE ISLAND MOUSE.

Type locality. Maria Madre Island, Tres Marias Islands, State of Jalisco, Mexico.

Geogr. Distr. Known only from the type locality.

350. *Peromyscus eva* Thomas.

Peromyscus eva Thomas, Ann. Mag. Nat. Hist., 7th Ser., 1, 1898, p. 44. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 198. Zoöl. Ser.

EVE'S MOUSE.

Type locality. San José del Cabo, Lower California, Mexico.

Geogr. Distr. Cape Region, Lower California, Mexico.

351. *Peromyscus nudipes* (Allen).

Hesperomys nudipes Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 213.

Peromyscus nudipes Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 198. Zoöl. Ser.

LA CARPINTERA FIELD MOUSE.

Type locality. La Carpintera, Costa Rica.

Geogr. Distr. Costa Rica, Central America.

352. *Peromyscus merriami* Mearns.

Peromyscus merriami Mearns, Proc. U. S. Nat. Mus., 1896, p. 138. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 198. Zoöl. Ser.

SONOYTA DESERT MOUSE.

Type locality. Sonoyta, on Sonoyta River, State of Sonora, Mexico.

Geogr. Distr. State of Sonora, Mexico. Range unknown.

353. *Peromyscus leucurus* Thomas.

Peromyscus leucurus Thomas, Ann. Mag. Nat. Hist., 6th Ser., xiv, 1894, p. 364. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 200. Zoöl. Ser.

WHITE-TAILED MOUSE.

Type locality. Tehuantepec, Mexico.

Geogr. Distr. Southern Mexico.

a. *Peromyscus leucurus gadovi* Thomas.

Peromyscus leucurus gadovi Thomas, Ann. Mag. Nat. Hist. N. Y., 7th Ser., xi, 1903, p. 484. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 201. Zoöl. Ser.

GADOW'S MOUSE.

Type locality. San Carlos, Yautepec, State of Oaxaca, Mexico.

Altitude, 2,250 feet.

Geogr. Distr. Limits of range unknown.

354. *Peromyscus melanophrys* (Coues).

Hesperomys melanophrys Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 181.

Peromyscus melanophrys Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 201. Zoöl. Ser.

BLACK-BROWED MOUSE.

Type locality. Santa Efigenia, Tehuantepec, State of Oaxaca, Mexico.

Geogr. Distr. Southern Mexico, Tehuacan and Tehuantepec, States of Puebla and Oaxaca.

a. *Peromyscus melanophrys zamoræ* Osgood.

Peromyscus melanophrys zamoræ Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 65. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 202. Zoöl. Ser.

ZAMORA MOUSE.

Type locality. Zamora, State of Michoacan, Mexico.

Geogr. Distr. Limits of range unknown.

b. *Peromyscus melanophrys consobrinus* Osgood.

Peromyscus melanophrys consobrinus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 66. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 202. Zoöl. Ser.

KINDRED MOUSE.

Type locality. Berriozabal, State of Zacátecás, Mexico.

Geogr. Distr. Unknown.

355. *Peromyscus xenurus* Osgood.

Peromyscus xenurus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 67. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 202. Zoöl. Ser.

ODD-TAILED MOUSE.

Type locality. Durango, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico. Limits unknown.

356. *Peromyscus zelotes* Osgood.

Peromyscus zelotes Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 67. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 203. Zoöl. Ser.

ENERGETIC MOUSE.

Type locality. Querendaro, State of Michoacan, Mexico.

Geogr. Distr. Known only from the type locality.

357. *Peromyscus hylocetes* Merriam.

Peromyscus hylocetes Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 124. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 204. Zool. Ser.

DRYAD MOUSE.

Type locality. Patzcuaro, State of Michoacan, Mexico. Altitude, 8,000 feet.

Geogr. Distr. State of Michoacan, Mexico. Range unknown.

358. *Peromyscus lepturus* Merriam.

Peromyscus lepturus Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 118. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 204. Zool. Ser.

MOUNT ZEMPOALTEPEC FIELD MOUSE.

Type locality. Mount Zempoaltepec, State of Oaxaca, Mexico. Altitude, 8,200 feet.

Geogr. Distr. Known only from the type locality.

359. *Peromyscus lophurus* Osgood.

Peromyscus lophurus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 72. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 204. Zool. Ser.

CRESTED-TAILED MOUSE.

Type locality. Todos Santos, Guatemala.

Geogr. Distr. Guatemala, Central America.

360. *Peromyscus simulatus* Osgood.

Peromyscus simulatus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 72. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 205. Zool. Ser.

IMITATOR MOUSE.

Type locality. Jico, State of Vera Cruz, Mexico.

Geogr. Distr. Known only from the type locality.

361. *Peromyscus felipensis* Merriam.

Peromyscus felipensis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 122. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 205. Zool. Ser.

SAN FELIPE FIELD MOUSE.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico. Altitude, 10,200 feet.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

362. *Peromyscus amplus* Osgood.

Peromyscus amplus Osgood, Proc. Biol. Soc. Wash., XVII, 1904,

- p. 62. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 205. Zoöl. Ser.

CHUBBY MOUSE.

Type locality. Coixtlahuaca, State of Oaxaca, Mexico.

Geogr. Distr. Unknown.

363. *Peromyscus tehuantepecus* Merriam.

Peromyscus tehuantepecus Merr., Proc. Biol. Soc. Wash., XII, 1898,

p. 122. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 206. Zoöl. Ser.

TEHUANTEPEC FIELD MOUSE.

Type locality. Tehuantepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

364. *Peromyscus oaxacensis* Merriam.

Peromyscus oaxacensis Merr., Proc. Biol. Soc. Wash., XII, 1898,

p. 122. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 206. Zoöl. Ser.

OAXACA FIELD MOUSE.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico.

Geogr. Distr. Known only from the type locality.

365. *Peromyscus comptus* Merriam.

Peromyscus comptus Merr., Proc. Biol. Soc. Wash., XII, 1898, p.

120. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 206. Zoöl. Ser.

CHILPANCINGO MOUSE.

Type locality. Mountains near Chilpancingo, State of Guerrero, Mexico.

Geogr. Distr. State of Guerrero, Mexico. Range unknown.

366. *Peromyscus mexicanus* (Saussure).

Hesperomys mexicanus Sauss., Rev. Mag. Zool., 2me Sér., XII,

1860, p. 103, pl. IX, figs. 1, 1a.

Peromyscus mexicanus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 207. Zoöl. Ser.

MEXICAN MOUSE.

Type locality. State of Vera Cruz, Mexico.

Geogr. Distr. Not determined.

a. *Peromyscus mexicanus teapensis* Osgood.

Peromyscus mexicanus teapensis Osgood, Proc. Biol. Soc. Wash.,

XVII, 1904, p. 69. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 207. Zoöl. Ser.

TEAPA MOUSE.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. Known only from the type locality.

b. *Peromyscus mexicanus orizabæ* Merriam.

Peromyscus mexicanus orizabæ Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 121. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 207. Zoöl. Ser.

ORIZABA FIELD MOUSE.

Type locality. Orizaba, State of Vera Cruz, Mexico. Altitude, 4,200 feet.

Geogr. Distr. State of Vera Cruz. Range unknown.

c. *Peromyscus mexicanus saxatilis* Merriam.

Peromyscus mexicanus saxatilis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 121. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 207. Zoöl. Ser.

ROCK MOUSE.

Type locality. Jacaltenango, Huehuetenango, Guatemala.

Geogr. Distr. Guatemala, Central America.

d. *Peromyscus mexicanus totontepecus* Merriam.

Peromyscus mexicanus totontepecus Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 120. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 208. Zoöl. Ser.

TOTONTEPEC FIELD MOUSE.

Type locality. Totontepec, State of Oaxaca.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

367. *Peromyscus allophylus* Osgood.

Peromyscus allophylus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 71. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 208. Zoöl. Ser.

ALIEN MOUSE.

Type locality. Huehuetan, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

368. *Peromyscus furvus* Allen & Chapman.

Peromyscus furvus Allen & Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 201. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 208, fig. 33. Zoöl. Ser.

JALAPA FIELD MOUSE.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico.

369. *Peromyscus zarhynchus* Merriam.

Peromyscus zarhynchus Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 117. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 209. Zoöl. Ser.

LONG-NOSED MOUSE.

Type locality. Tumbala, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

a. *Peromyscus zarhynchus cristobalensis* Merriam.

Peromyscus zarhynchus cristobalensis Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 117. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 209. Zoöl. Ser.

SAN CRISTOBAL FIELD MOUSE.

Type locality. San Cristobal, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.*

370 *Peromyscus auritus* Merriam.

Peromyscus auritus Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 119. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 209. Zoöl. Ser.

LARGE-EARED FIELD MOUSE.

Type locality. Mountains west of Oaxaca City, State of Oaxaca, Mexico.

Geogr. Distr. Known only from the type locality.

371. *Peromyscus megalops* Merriam.

Peromyscus megalops Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 119. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 210. Zoöl. Ser.

OZOLOTEPEC FIELD MOUSE.

Type locality. Mountains near Ozolotepec, State of Oaxaca, Mexico.

Geogr. Distr. Known only from the type locality.

372. *Peromyscus melanocarpus* Osgood.

Peromyscus melanocarpus Osgood, Proc. Biol. Soc. Wash., xvii, 1904, p. 73. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 210. Zoöl. Ser.

BLACK-FOOTED MOUSE.

Type locality. Mount Zempoaltepec, State of Oaxaca, Mexico.

Geogr. Distr. Known only from the type locality.

373. *Peromyscus altilaneus* Osgood.

Peromyscus altilaneus Osgood, Proc. Biol. Soc. Wash., xvii, 1904, p. 74. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 210. Zoöl. Ser.

FLUFFY MOUSE.

Type locality. Todos Santos, Guatemala. Altitude, 10,000 feet.
Geogr. Distr. Guatemala, Central America.

374. *Peromyscus guatemalensis* Merriam.

Peromyscus guatemalensis Merr., Proc. Biol. Soc. Wash., XII, 1898,
p. 118. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. I, 1904, p. 211. Zool. Ser.

TODOS SANTOS MOUSE.

Type locality. Todos Santos, Guatemala. Altitude, 10,000 feet.
Geogr. Distr. Guatemala, Central America.

375. *Peromyscus cacabatus* Bangs.

Peromyscus cacabatus Bangs, Bull. Mus. Comp. Zool., XXXIX, 1902,
p. 29. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. I, 1904, p. 211. Zool. Ser.

SOOTY MOUSE.

Type locality. Boquete, Chiriqui, Panama.
Geogr. Distr. Panama.

376. *Peromyscus mecisturus* Merriam.

Peromyscus mecisturus Merr., Proc. Biol. Soc. Wash., XII, 1898,
p. 124.

Peromyscus mecisturus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 212. Zool. Ser.

GREAT-TAILED MOUSE.

Type locality. Chalchicomula, State of Puebla, Mexico. Altitude,
8,400 feet.

Geogr. Distr. State of Puebla, Mexico.

Genus 61. **Megadontomys.**

Megadontomys Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 115.

Type *Peromyscus thomasi* Merriam.

377. *Megadontomys thomasi* (Merriam).

Peromyscus thomasi Merr., Proc. Biol. Soc. Wash., XII, 1898, p.
116.

Megadontomys thomasi Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 213, fig. 34. Zool. Ser.

THOMAS' GUERRERO FIELD MOUSE.

Type locality. Mountains near Chilpancingo, State of Guerrero,
Mexico. Altitude, 9,700 feet.

Geogr. Distr. State of Guerrero, Mexico. Range unknown.

378. Megadontomys nelsoni (Merriam).

Peromyscus nelsoni Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 116.

Megadontomys nelsoni Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 214. Zoöl. Ser.

NELSON'S FIELD MOUSE.

Type locality. Jico, State of Vera Cruz, Mexico. Altitude, 6,000 feet.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

379. Megadontomys flavidus Bangs.

Megadontomys flavidus Bangs, Bull. Mus. Comp. Zoöl., xxxix, 1902, p. 27. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 214. Zoöl. Ser.

BOQUETE FIELD MOUSE.

Type locality. Boquete, Chiriqui, Panama. Altitude, 4,000 feet.

Geogr. Distr. Panama, Central America.

Genus 62. **Nyctomys.**

Nyctomys Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 106. Type

Hesperomys sumichrasti Saussure.

Myxomys Tomes, Proc. Zoöl. Soc., 1861, p. 284, pl. xxxi.

380. Nyctomys sumichrasti (Saussure).

Hesperomys sumichrasti Sauss., Rev. Mag. Zool., 2me Sér., 1860, p. 107, pl. 9, fig. 2.

Nyctomys sumichrasti Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 216, fig. 35. Zoöl. Ser.

SUMICHRAST'S VESPER RAT.

Type locality. "Habite le versant oriental de la Cordillère." State of Vera Cruz? Mexico.

Geogr. Distr. Eastern Mexico, State of Vera Cruz to Isthmus of Tehuantepec, Mexico.

381. Nyctomys decolorus (True).

Sitomys (Rhipidomys) decolorus True, Proc. U. S. Nat. Mus., XVI, 1894, p. 689.

Nyctomys decolorus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 216. Zoöl. Ser.

FADED VESPER RAT.

Type locality. Rio de las Piedras, Honduras.

Geogr. Distr. Tehuantepec, Mexico, into Honduras, Central America.

382. *Nyctomys nitellinus* Bangs.

Nyctomys nitellinus Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 30. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 216. Zool. Ser.

BOQUETE VESPER RAT.

Type locality. Boquete, Chiriqui, Panama. Altitude, 4,000 feet.
Geogr. Distr. Panama, Central America.

Genus 63. *Tylomys*.

***Tylomys* Peters**, Monatsb. K. Preuss. Akad. Wiss. Berl., 1866, p. 404. Type *Hesperomys nudicaudus* Peters.

383. *Tylomys nudicaudus* (Peters).

Hesperomys nudicaudus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1866, p. 404, pl. 1, figs. 1-4.

Tylomys nudicaudus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 217, fig. 36. Zool. Ser.

NAKED-TAILED RAT.

Type locality. Guatemala.

Geogr. Distr. Southeastern Mexico (State of Chiapas), into Guatemala.

384. *Tylomys tumbalensis* Merriam.

Tylomys tumbalensis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 560. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 218. Zool. Ser.

TUMBALA RAT.

Type locality. Tumbala, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

385. *Tylomys bullaris* Merriam.

Tylomys bullaris Merr., Proc. Wash. Acad. Scien., III, 1901, p. 561. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 219. Zool. Ser.

TUXTLA RAT.

Type locality. Tuxtla, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

386. *Tylomys watsoni* Thomas.

Tylomys watsoni Thomas, Ann. Mag. Nat. Hist., 7th Ser., iv, 1897, p. 278. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 219. Zool. Ser.

WATSON'S RAT.

Type locality. Bogava, Chiriqui, Panama. Altitude, 8,000 feet.

Geogr. Distr. Panama, Central America.

387. *Tylomys panamensis* (Gray).

Neomys panamensis Gray, Ann. Mag. Nat. Hist., 4th Ser., XII, 1873, p. 417.

Tylomys panamensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 219. Zoöl. Ser.

PANAMA RAT.

Type locality. Panama.

Geogr. Distr. Panama, Central America.

Genus 64. **Ototylomys.**

Ototylomys Merr., Proc. Wash. Acad. Scien., III, 1901, p. 561.

Type *Ototylomys phyllotis* Merriam.

388. *Ototylomys phyllotis* Merriam.

Ototylomys phyllotis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 562. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 221, fig. 37. Zoöl. Ser.

TUNKAS RAT.

Type locality. Tunkas, Yucatan, Mexico.

Geogr. Distr. Yucatan.

a. Ototylomys phyllotis phæus Merriam.

Ototylomys phyllotis phæus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 563. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 221. Zoöl. Ser.

APAZOTE RAT.

Type locality. Apazote, near Yohaltun, State of Campeche, Mexico.

Geogr. Distr. State of Campeche, Mexico.

Genus 65. **Sigmodon. Cotton Rats.**

Sigmodon Say and Ord, Journ. Acad. Nat. Scien. Phil., IV, 1825, p. 352, pl. xxii, figs. 5-8. Type *Sigmodon hispidus* Say and Ord.

389. *Sigmodon hispidus* Say and Ord.

Sigmodon hispidus Say and Ord, Journ. Acad. Nat. Scien. Phil., 1825, p. 354. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 144, fig. 31. Zoöl. Ser.

Arvicola ferrugineus Harl., Am. Journ. Scien., 1828, p. 285.

Arvicola hortensis Harl., Med. & Phys. Res., 1835, p. 49, pl., fig. 58.

HISPID COTTON RAT.

Type locality. St. John's River, east Florida.

Geogr. Distr. North Carolina to northern Florida and west to southern Louisiana.

a. **Sigmodon hispidus littoralis* Chapman.

Sigmodon hispidus littoralis Chapm., Bull. Am. Mus. Nat. Hist.

N. Y., 1889, p. 118. Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., 11, 1901, p. 144. Zool. Ser.

COAST COTTON RAT.

Type locality. Micco, Brevard County, Florida.

Geogr. Distr. Southeastern Florida.

b. *Sigmodon hispidus spadicipygus* Bangs.

Sigmodon hispidus spadicipygus Bangs, Proc. Bost. Soc. Nat.

Hist., 1898, p. 192.

Sigmodon spadicipygus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

11, 1901, p. 145. Zool. Ser.

BROWN-RUMPED COTTON RAT.

Type locality. Cape Sable, Monroe County, Florida.

Geogr. Distr. Extreme southern part of the peninsula of Florida.

c. *Sigmodon hispidus texensis* (Audubon & Bachman).

Arvicola texiana! Aud. & Bach., Quad. N. Am., 111, 1853, p. 229.

Sigmodon hispidus texensis Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., 11, 1901, p. 144. Zool. Ser.

TEXAN COTTON RAT.

Type locality. Brazos River, Texas.

Geogr. Distr. Eastern Texas as far west as Vernon and San Antonio, in Wilbarger and Bexar Counties, Texas, north to Cairo, Pratt County, Kansas.

d. *Sigmodon hispidus berlandieri* (Baird).

Sigmodon berlandieri Baird, Proc. Acad. Nat. Scien. Phil., 1855,

p. 333.

Sigmodon hispidus pallidus Mearns, Proc. U. S. Nat. Mus., 1897,

p. 504. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,

p. 145. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., 14, Pt. 1, 1904, p. 228. Zool. Ser.

Sigmodon hispidus berlandieri Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., 14, Pt. 1, 1904, p. 227. Zool. Ser.

*Very doubtfully separable from *S. hispidus*. See F. C. M. Pub., 11, 1901, p. 42.

BERLANDIER'S COTTON RAT.

Type locality. Rio Nazas, State of Coahuila, Mexico.

Geogr. Distr. Rio Grande and Pecos Valleys from Brownsville and El Paso, Texas, and Carlsbad, New Mexico, south to southern part of State of Jalisco, Mexico.

e. *Sigmodon hispidus eremicus* Mearns.

Sigmodon hispidus eremicus Mearns, Proc. U. S. Nat. Mus., 1897, p. 504. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 145. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 227. Zoöl. Ser.

WESTERN DESERT COTTON RAT.

Type locality. Cienega Well, State of Sonora, Mexico, on east bank of the Colorado River, 30 miles south of monument No. 204 on the United States and Mexico boundary line.

Geogr. Distr. Both sides of the Lower Colorado River.

f. *Sigmodon hispidus arizonæ* Mearns.

Sigmodon hispidus arizonæ Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 287. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 144. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 228. Zoöl. Ser.

ARIZONA COTTON RAT.

Type locality. Fort Verde, Yavapai County, Arizona.

Geogr. Distr. Arizona, limits of range unknown.

g. *Sigmodon hispidus mascotensis* (Allen).

Sigmodon mascotensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 54.

Sigmodon colimæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 55.

Sigmodon hispidus mascotensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 227. Zoöl. Ser.

MASCOTA COTTON RAT.

Type locality. San Sebastian, near Mascota, State of Jalisco, Mexico.

Geogr. Distr. West coast of Mexico from western part of the State of Jalisco to southern portion of the State of Oaxaca.

h. *Sigmodon hispidus tonalensis* Bailey.

Sigmodon hispidus tonalensis Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 109. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 229. Zoöl. Ser.

TONALA COTTON RAT.

Type locality. Tonalá, State of Chiapas, Mexico.

Geogr. Distr. Western part of the State of Chiapas, and eastern part of the State of Oaxaca, Mexico.

i. *Sigmodon hispidus inexoratus* Elliot.

Sigmodon hispidus inexoratus Elliot, Pub. Field. Columb. Mus., III, 1903, p. 144. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 229, fig. xxxviii. Zoöl. Ser.

OCOTLAN COTTON RAT.

Type locality. Ocotlán, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico. Range unknown.

j. *Sigmodon hispidus major* Bailey.

Sigmodon hispidus major Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 109. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 228. Zoöl. Ser.

LARGE COTTON RAT.

Type locality. Sierra de Choix, 50 miles northeast of Choix, State of Sinaloa, Mexico.

Geogr. Distr. Province of Tepic to southern part of the State of Sonora, Mexico.

k. *Sigmodon hispidus baileyi* (Allen).

Sigmodon baileyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 601.

Sigmodon hispidus baileyi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 226. Zoöl. Ser.

BAILEY'S COTTON RAT.

Type locality. La Ciénega de las Vacas, State of Durango, Mexico. Altitude, 8,500 feet.

Geogr. Distr. State of Durango, Mexico. Range unknown.

l. *Sigmodon hispidus toltecus* (Saussure).

Hesperomys toltecus Sauss., Rev. Mag. Zool., 2me Sér., 1860, p. 98.

Sigmodon hispidus toltecus Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 226. Zoöl. Ser.

TOLTEC COTTON RAT.

Type locality. "Cordilleras of Vera Cruz," Mexico.

Geogr. Distr. Eastern Mexico from Alta Mira, southern part of the State of Tamaulipas, to Orizaba, State of Vera Cruz, Mexico.

m. *Sigmodon hispidus saturatus* Bailey.

Sigmodon hispidus saturatus Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 111. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 225. Zoöl. Ser.

TEAPA COTTON RAT.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. States of Tabasco, Chiapas, and Vera Cruz.

n. *Sigmodon hispidus furrus* Bangs.

Sigmodon hispidus furrus Bangs, Bull. Mus. Comp. Zool., xxxiv, 1903, p. 158. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 225. Zool. Ser.

CEIBA COTTON RAT.

Type locality. Ceiba, Honduras.

Geogr. Distr. Honduras. Range unknown.

o. *Sigmodon hispidus microdon* Bailey.

Sigmodon hispidus microdon Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 111. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 226. Zool. Ser.

SMALL-TOOTHED COTTON RAT.

Type locality. Puerto Morelos, Yucatan.

Geogr. Distr. Northern Yucatan and State of Campeche, Mexico.

p. *Sigmodon hispidus borucæ* (Allen).

Sigmodon borucæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 40.

Sigmodon hispidus borucæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 224, fig. 38. Zool. Ser.

BORUCA COTTON RAT.

Type locality. Boruca, Costa Rica, Central America.

Geogr. Distr. Costa Rica, limits of range unknown.

q. *Sigmodon hispidus chiriquensis* (Allen).

Sigmodon borucæ chiriquensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 68.

Sigmodon hispidus chiriquensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 225. Zool. Ser.

BOQUERON COTTON RAT.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

390. *Sigmodon minimus* Mearns.

Sigmodon minimus Mearns, Proc. U. S. Nat. Mus., xvii, 1894, p. 130. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 146. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 230. Zool. Ser.

LEAST COTTON RAT.

Type locality. Northern boundary line between New Mexico and Mexico, 100 miles west of the Initial Monument in Grant County, on the west bank of the Rio Grande.

Geogr. Distr. Mountains of southern New Mexico, Arizona, and northern Mexico.

391. *Sigmodon alticola* Bailey.

Sigmodon alticola Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 116.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 231. Zool. Ser.

ALPINE COTTON RAT.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico. Altitude, 10,000 feet.

Geogr. Distr. Mountains in State of Oaxaca, Mexico.

a. *Sigmodon alticola amoles* Bailey.

Sigmodon alticola amoles Bailey, Proc. Biol. Soc. Wash., xv, 1902,

p. 116. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 231. Zool. Ser.

AMOLES COTTON RAT.

Type locality. Pinal de Amoles, State of Queretaro, Mexico.

Geogr. Distr. Known only from the type locality.

392. *Sigmodon ochrognathus* Bailey.

Sigmodon ochrognathus Bailey, Proc. Biol. Soc. Wash., xv, 1902,

p. 115. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 230. Zool. Ser.

OCHRACEOUS-FACED COTTON RAT.

Type locality. Chisos Mountains, Brewster County, Texas. Altitude, 8,000 feet.

Geogr. Distr. Chisos Mountains, Texas, south of Parral, State of Chihuahua, Mexico.

393. *Sigmodon leucotis* Bailey.

Sigmodon leucotis Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 115.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 230. Zool. Ser.

WHITE-EARED COTTON RAT.

Type locality. Valparaiso Mountains, State of Zacatecas, Mexico. Altitude, 8,700 feet.

Geogr. Distr. Known only from the type locality.

394. *Sigmodon alleni* Bailey.

Sigmodon alleni Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 112.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 224. Zool. Ser.

ALLEN'S COTTON RAT.

Type locality. San Sebastian, Mascota, State of Jalisco, Mexico.

Geogr. Distr. Western portion of State of Jalisco, and southern part of Province of Tepic, Mexico.

395. *Sigmodon fulviventer* Allen.

Sigmodon fulviventer Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1889, p. 180. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 232. Zoöl. Ser.

FULVOUS-BELLIED COTTON RAT.

Type locality. Zacatecas, State of Zacatecas, Mexico.

Geogr. Distr. States of Durango and Zacatecas, Mexico.

396. *Sigmodon melanotis* Bailey.

Sigmodon melanotis Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 114. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 232. Zoöl. Ser.

BLACK-EARED COTTON RAT.

Type locality. Patzcuaro, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, range unknown.

397. *Sigmodon austerulus* Bangs.

Sigmodon austerulus Bangs, Bull. Mus. Comp. Zoöl., xxxix, 1902, p. 32. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 231. Zoöl. Ser.

VOLCAN DE CHIRIQUI COTTON RAT.

Type locality. Volcan de Chiriqui, Chiriqui, Panama. Altitude, 10,000 feet.

Geogr. Distr. Panama, Central America.

Genus 66. *Oryzomys*. Rice Rats.

***Oryzomys* Baird, N. Am. Mamm., 1857, p. 458. Type *Mus palustris* Harlan.**

Oligoryzomys Bangs, Proc. N. Eng. Zoöl. Club, 1, 1900, p. 94, pl. 1, fig. 2.

Subgenus A. *Oryzomys*.

398. *Oryzomys palustris* (Harlan).

Mus palustris Harl., Am. Journ. Scien. & Arts, xxxi, 1837, pp. 385-386.

Hesperomys palustris Wagn., Schreb. Säugth., Suppl., III, 1843, p. 543.

Arvicola oryzivora Aud. & Bachm., N. Am. Quad., III, 1853, p. 214, pl. CXLIV, fig. 3.

Oryzomys palustris texensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 177. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 147. Zool. Ser.

Oryzomys palustris Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 147. Zool. Ser.

SWAMP RICE RAT.

Type locality. "Fast Land," near Salem, Salem County, Delaware Bay, southern New Jersey.

Geogr. Distr. New Jersey to Georgia.

a. *Oryzomys palustris coloratus* Bangs.

Oryzomys palustris coloratus Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 189.

Oryzomys aquaticus coloratus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 148. Zool. Ser.

CAPE SABLE RICE RAT.

Type locality. Cape Sable, Florida.

Geogr. Distr. Southern portion of the Florida Peninsula.

399. **Oryzomys natator* (Chapman).

Oryzomys palustris natator Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 44. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 147. Zool. Ser.

SWIMMING RICE RAT.

Type locality. Gainesville, Alachua County, Florida.

Geogr. Distr. Florida west to Texas.

a. *Oryzomys natator floridanus* Merriam.

Oryzomys natator floridanus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 277.

FLORIDA RICE RAT.

Type locality. Everglade, Monroe County, Florida.

Geogr. Distr. Florida.

Genl. Char. Similar to *O. natator* but smaller. Skull shorter, zygomata broadly spreading, outer sides nearly parallel.

Color. Like *O. natator*, but the cheeks and sides more inclining to fulvous.

Measurements. Average of 6 males: total length, 267; tail vertebrae, 137; hind foot, 33.

400. *Oryzomys aquaticus* Allen.

Oryzomys aquaticus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 289. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 147, fig. 32. Zool. Ser.

*Raised to specific rank by Dr. Merriam, Proc. Wash. Acad. Scien., III, 1901, p. 277.

AQUATIC RICE RAT.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Southeastern Texas; limits of range unknown.

401. *Oryzomys peninsulæ* Thomas.

Oryzomys peninsulæ Thomas, Ann. Mag. Nat. Hist., 6th Ser., xx, 1897, p. 548. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 236. Zoöl. Ser.

LOWER CALIFORNIA RICE RAT.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Cape Region, Lower California, Mexico.

402. *Oryzomys nelsoni* Merriam.

Oryzomys nelsoni Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 15. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 235. Zoöl. Ser.

MARIA MADRE ISLAND RICE RAT.

Type locality. Maria Madre Island, Tres Marias Islands, State of Jalisco, Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico.

403. *Oryzomys albiventer* Merriam.

Oryzomys albiventer Merr., Proc. Wash. Acad. Scien., III, 1901, p. 279. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 236. Zoöl. Ser.

WHITE-BELLIED RICE RAT.

Type locality. Ameca, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico. Extent of range unknown.

404. *Oryzomys cozumelæ* Merriam.

Oryzomys cozumelæ Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 103. *Id.* Proc. Wash. Acad. Scien., III, 1901, p. 280. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 241. Zoöl. Ser.

COZUMEL ISLAND RICE RAT.

Type locality. Cozumel Island, Yucatan, Mexico.

Geogr. Distr. Known only from the type locality.

405. *Oryzomys panamensis* Thomas.

Oryzomys panamensis Thomas, Ann. Mag. Nat. Hist., 7th Ser., VIII, 1901, p. 252. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 241. Zoöl. Ser.

PANAMA RICE RAT.

Type locality. Near City of Panama, Panama.

Geogr. Distr. Panama, Central America.

406. *Oryzomys talamancæ* Allen.

Oryzomys talamancæ Allen, Proc. U. S. Nat. Mus., xiv, 1891, p. 193. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 241. Zoöl. Ser.

TALAMANCA RICE RAT.

Type locality. Talamanca, Costa Rica.

Geogr. Distr. Costa Rica, Central America.

407. *Oryzomys alfari* (Allen).

Hesperomys alfari Allen, Bull. Am. Mus. Nat. Hist., N. Y., 1891, p. 214.

Oryzomys alfari Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 242. Zoöl. Ser.

ALFARO'S RICE RAT.

Type locality. San Carlos, Costa Rica, Central America.

Geogr. Distr. Costa Rica, Central America.

408. *Oryzomys fulgens* Thomas.

Oryzomys fulgens Thomas, Ann. Mag. Nat. Hist., 6th Ser., xi, 1893, p. 403. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 240. Zoöl. Ser.

SHINING RICE RAT.

Type locality. Unknown, "Mexico."

Geogr. Distr. Unknown.

409. *Oryzomys molestus* Elliot.

Oryzomys molestus Elliot, Pub. Field Columb. Mus., iii, 1903, p. 145. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 240, fig. xxxix. Zoöl. Ser.

OCOTLAN RICE RAT.

Type locality. Ocotlan, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico; range unknown.

410. *Oryzomys crinitus* Merriam.

Oryzomys crinitus Merr., Proc. Wash. Acad. Scien., iii, 1901, p. 281. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 245. Zoöl. Ser.

LONG-HAIRED RICE RAT.

Type locality. Talpam, Federal District, Mexico.

Geogr. Distr. Unknown.

a. *Oryzomys crinitus aztecus* Merriam.

Oryzomys crinitus aztecus Merr., Proc. Wash. Acad. Scien., iii, 1901, p. 282. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 245. Zoöl. Ser.

AZTEC RICE RAT.

Type locality. Yautepec, State of Morelos, Mexico.

Geogr. Distr. Southeastern Mexico, from States of Morelos and Puebla to Isthmus of Tehuantepec.

411. *Oryzomys mexicanus* Allen.

Oryzomys mexicanus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 52. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 242. Zoöl. Ser.

TONILA RICE RAT.

Type locality. Hacienda San Marcos, Tonila, State of Jalisco, Mexico.

Geogr. Distr. Southern part of the State of Sinaloa to Isthmus of Tehuantepec, Mexico.

a. *Oryzomys mexicanus peragrus* Merriam.

Oryzomys mexicanus peragrus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 283. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 243. Zoöl. Ser.

WANDERING RICE RAT.

Type locality. Rio Verde, State of San Luis Potosi, Mexico.

Geogr. Distr. State of San Luis Potosi, Mexico. Limits of range unknown.

412. *Oryzomys richmondi* Merriam.

Oryzomys richmondi Merr., Proc. Wash. Acad. Scien., III, 1901, p. 284. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 248. Zoöl. Ser.

ESCONDIDO RIVER RICE RAT.

Type locality. Escondido River, 50 miles above Bluefields, Nicaragua.

Geogr. Distr. Nicaragua. Range unknown.

413. *Oryzomys jalapæ* Allen & Chapman.

Oryzomys jalapæ Allen & Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 206. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 246. Zoöl. Ser.

JALAPA RICE RAT.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, and northwestern part of State of Puebla, Mexico.

a. *Oryzomys jalapæ apatelius* Elliot.

Oryzomys jalapæ apatelius Elliot, Pub. Field Columb. Mus., III, 1904, p. 266. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 246. Zoöl. Ser.

DECEITFUL RICE RAT.

Type locality. San Carlos, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

b. *Oryzomys jalapæ rufinus* Merriam.

Oryzomys jalapæ rufinus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 285. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 247. Zoöl. Ser.

CATEMACO RICE RAT.

Type locality. Catemaco, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

414. *Oryzomys zygomatiscus* Merriam.

Oryzomys zygomatiscus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 285. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 241. Zoöl. Ser.

GUATEMALAN RICE RAT.

Type locality. Nentón, Guatemala.

Geogr. Distr. Guatemala.

415. *Oryzomys teapensis* Merriam.

Oryzomys teapensis Merr., Proc. Acad. Scien. Wash., III, 1901, p. 286. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 247. Zoöl. Ser.

TEAPA RICE RAT.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. State of Tabasco, possibly also the State of Chiapas, Mexico.

416. *Oryzomys bulleri* Allen.

Oryzomys bulleri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 53. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 239. Zoöl. Ser.

BULLER'S RICE RAT.

Type locality. Valle de Banderas, Territorio de Tepic, State of Jalisco, Mexico.

Geogr. Distr. States of Jalisco and Colima, Mexico.

417. *Oryzomys rufus* Merriam.

Oryzomys rufus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 287. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 239. Zoöl. Ser.

RUFIOUS RICE RAT.

Type locality. Santiago, Territorio de Tepic, State of Jalisco, Mexico.

Geogr. Distr. Territorio de Tepic, State of Jalisco, Mexico.

418. *Oryzomys couesi* (Alston).

Hesperomys couesi Alston, Proc. Zool. Soc., 1876, p. 756.

Oryzomys couesi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 236. Zool. Ser.

COUES' RICE RAT.

Type locality. Coban, Guatemala.

Geogr. Distr. State of Chiapas, Mexico, into Guatemala, Central America.

419. *Oryzomys goldmani* Merriam.

Oryzomys goldmani Merr., Proc. Wash. Acad. Scien., III, 1901,

p. 288. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 246. Zool. Ser.

GOLDMAN'S RICE RAT.

Type locality. Coatzacoalcos, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz. Range unknown.

420. *Oryzomys chapmani* Thomas.

Oryzomys chapmani Thomas, Ann. Mag. Nat. Hist., 7th Ser., 1,

1898, p. 179. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 238. Zool. Ser.

CHAPMAN'S RICE RAT.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico.

a. *Oryzomys chapmani caudatus* Merriam.

Oryzomys chapmani caudatus Merr., Proc. Wash. Acad. Scien., III,

1901, p. 289. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 238. Zool. Ser.

LONG-TAILED RICE RAT.

Type locality. Comaltepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca. Range unknown.

b. *Oryzomys chapmani dilutior* Merriam.

Oryzomys chapmani dilutior Merr., Proc. Wash. Acad. Scien., III,

1901, p. 290. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 238. Zool. Ser.

PALE RICE RAT.

Type locality. Huauchinango, State of Puebla, Mexico.

Geogr. Distr. State of Puebla, Mexico. Range unknown.

c. *Oryzomys chapmani saturation* Merriam.

Oryzomys chapmani saturation Merr., Proc. Wash. Acad. Scien.,

III, 1901, p. 290. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 239. Zool. Ser.

TUMBALA RICE RAT.

Type locality. Tumbala, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.

421. *Oryzomys palatinus* Merriam.

Oryzomys palatinus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 290. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 237. Zoöl. Ser.

TABASCAN RICE RAT.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. State of Tabasco. Range unknown.

422. *Oryzomys hylocetes* Merriam.

Oryzomys hylocetes Merr., Proc. Wash. Acad. Scien., III, 1901, p. 291. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 237. Zoöl. Ser.

MARSH RICE RAT.

Type locality. Chicharras, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.

423. *Oryzomys rhabdops* Merriam.

Oryzomys rhabdops Merr., Proc. Wash. Acad. Scien., III, 1901, p. 291. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 237. Zoöl. Ser.

STRIPED-FACE RICE RAT.

Type locality. Cael, Guatemala. Altitude, 10,000 feet?

Geogr. Distr. State of Chiapas, Mexico, into Guatemala, Central America.

424. *Oryzomys angusticeps* Merriam.

Oryzomys angusticeps Merr., Proc. Wash. Acad. Scien., III, 1901, p. 292. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 245. Zoöl. Ser.

SANTA MARIA VOLCAN RICE RAT.

Type locality. Volcan Santa Maria, Guatemala. Altitude, 9,000 feet.

Geogr. Distr. Guatemala, Central America.

425. *Oryzomys melanotis* Thomas.

Oryzomys melanotis Thomas, Ann. Mag. Nat. Hist., 6th Ser., XI, 1893, p. 404. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 243. Zoöl. Ser.

BLACK-EARED RICE RAT.

Type locality. Mineral San Sebastian, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico.

426. *Oryzomys rostratus* Merriam.

Oryzomys rostratus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 293. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 243. Zoöl. Ser.

BROAD-NOSED RICE RAT.

Type locality. Metlaltoyuca, State of Puebla, Mexico.

Geogr. Distr. Eastern Mexico from State of Puebla to Isthmus of Tehuantepec.

a. *Oryzomys rostratus megadon* Merriam.

Oryzomys rostratus megadon Merr., Proc. Wash. Acad. Scien., III, 1901, p. 294. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 243. Zoöl. Ser.

LARGE-TOOTHED RICE RAT.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. State of Tabasco, westward probably to State of Puebla, Mexico.

427. *Oryzomys victus* Thomas.

Oryzomys victus Thomas, Ann. Mag. Nat. Hist., 7th Ser., I, 1898, p. 177. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 244. Zoöl. Ser.

ST. VINCENT RICE RAT.

Type locality. Island of St. Vincent, Lesser Antilles.

Geogr. Distr. Island of St. Vincent.

428. *Oryzomys devius* Bangs.

Oryzomys devius Bangs, Bull. Mus. Comp. Zoöl., XXXIX, 1902, p. 34. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 244. Zoöl. Ser.

LONELY RICE RAT.

Type locality. Boquete, Chiriqui, Panama. Altitude, 5,000 feet.

Geogr. Distr. Panama, Central America.

429. *Oryzomys antillarum* Thomas.

Oryzomys antillarum Thomas, Ann. Mag. Nat. Hist., 7th Ser., I, 1898, p. 177. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 247. Zoöl. Ser.

JAMAICA RICE RAT.

Type locality. Island of Jamaica.

Geogr. Distr. Known only from the type locality.

430. *Oryzomys tectus* Thomas.

Oryzomys tectus Thomas, Ann. Mag. Nat. Hist., 7th Ser., VIII, 1901, p. 251. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 245. Zoöl. Ser.

BOGAVA RICE RAT.

Type locality. Bogava, Chiriqui, Panama. Altitude, 800 feet.

Geogr. Distr. Panama, Central America.

431. *Oryzomys yucatanensis* Merriam.

Oryzomys yucatanensis Merr., Proc. Wash. Acad. Scien., III, 1901,

p. 294. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 236. Zool. Ser.

CHICHEN ITZA RICE RAT.

Type locality. Chichen Itza, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico.

432. *Oryzomys fulvescens* (Saussure).

Hesperomys fulvescens Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860,

p. 102.

Oryzomys fulvescens Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 248. Zool. Ser.

FULVOUS RICE RAT.

Type locality. "Mexique," Orizaba, State of Vera Cruz? Mexico.

Geogr. Distr. Jalapa and vicinity, State of Vera Cruz, south to Yucatan, Mexico, and Guatemala, Central America.

Subgenus B. *Oligoryzomys*.**433. *Oryzomys costaricensis* Allen.**

Oryzomys costaricensis Allen, Bull. Am. Mus. Nat. Hist. N. Y.,

1893, p. 239. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 249, fig. 39. Zool. Ser.

Oryzomys vegetus Bangs, Bull. Mus. Comp. Zool., XXXIX, 1902,

p. 35. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 249, fig. 40. Zool. Ser.

EL GENERAL RICE RAT.

Type locality. El General, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Altitude, from 2,150 to 10,342 feet.

Genus 67. **Moschophoromys. Musk-Bearing Rats.**

Moschophoromys Elliot, Pub. Field Columb. Mus., III, 1904, p. 270.

Zool. Ser. *Type* *Mus desmaresti* Fischer.

Megalomys Trouess., Le Naturaliste, III, No. 45, 1881, p. 5. *Id.*

Ann. Scien. Nat. Paris, Zool., XIX, No. 5, 1885, p. 13, pl. 1.

(nec D'Orbigny & Laurillard, 1842, Paleontology.)

Moschomys Trouess., Ann. Mag. Nat. Hist., 7th Ser., XI, 1903,

p. 387. (nec Billberg, 1828, Microtinæ.)

434. Moschophoromys desmaresti (Fischer).

Mus desmaresti Fischer, Syn. Mamm., 1829, p. 316.

Mus pilorides Desm., Dict. Scien. Nat., XLIV, 1826, p. 483. (nec Pallas ex Ceylon.)

Moschophoromys desmaresti Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 250, fig. 41. Zoöl. Ser.

BLACK RICE RAT.

Type locality. Island of Martinique, West Indies.

Geogr. Distr. Known only from the Island of Martinique.

435. Moschophoromys luciae (Forsyth-Major).

Oryzomys luciae Forsyth-Major, Ann. Mag. Nat. Hist., 7th Ser., VII, 1901, p. 206.

Moschophoromys luciae Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 251. Zoöl. Ser.

ST. LUCIA RICE RAT.

Type locality. Island of St. Lucia, West Indies.

Geogr. Distr. Known only from the Island of St. Lucia.

Genus 68. **Zygodontomys.**

Zygodontomys Allen, Bull. Am. Mus. Nat. Hist. N. Y., IX, 1897, p. 38, pl. 1, figs. 1-7. Type "*Oryzomys cherriei*" Allen.

436. Zygodontomys cherriei (Allen).

Oryzomys cherriei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 329.

Zygodontomys cherriei Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 253, figs. 42, XL. Zoöl. Ser.

CHERRIE'S RICE RAT.

Type locality. Boruca, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

437. Zygodontomys chrysomelas (Allen).

Oryzomys chrysomelas Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 37.

Hesperomys (Habrothrix) caliginosus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 210. (nec Tomes.)

Zygodontomys chrysomelas Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 253. Zoöl. Ser.

SUERRE RICE RAT.

Type locality. Suerre, Costa Rica.

Geogr. Distr. Costa Rica, Central America.

438. *Zygodontomys seorsus* Bangs.

Zygodontomys seorsus Bangs, Amer. Nat., xxxv, 1901, p. 642.
 Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,
 Pt. 1, 1904, p. 254. Zoöl. Ser.

ISOLATED RICE RAT.

Type locality. San Miguel Island, Bay of Panama.
Geogr. Distr. Known only from San Miguel Island.

Genus 69. *Sigmodontomys*.

Sigmodontomys Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 38.
 pl. 1, figs. 8-14. Type *Sigmodontomys alfari* Allen.

439. *Sigmodontomys alfari* Allen.

Sigmodontomys alfari Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
 1897, p. 39. Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., iv, Pt. 1, 1904, p. 255. Zoöl. Ser.

ALFARO'S RICE RAT.

Type locality. Jimenez, Costa Rica. Altitude, 7,000 feet.
Geogr. Distr. Costa Rica, Central America. Range unknown.

Genus 70. *Rhithrodontomys*. Harvest Mice.

Reithrodontomys (*sic*) Giglioli, Ricer. intern. alla Distrib. Geogr. Gen.
 Roma, 1873, p. 160. Type *Mus lecontei* Audubon & Bachman.

440. *Rhithrodontomys lecontei* (Audubon & Bachman).

Mus lecontei Aud. & Bachm., Jour. Acad. Nat. Scien. Phil., 1842,
 p. 307.

Reithrodontomys lecontei Elliot, Syn. N. Am. Mamm., F. C. M.
 Pub., II, 1901, p. 148, fig. 33. Zoöl. Ser.

LE CONTE'S HARVEST MOUSE.

Type locality. Probably near Riceboro, Liberty County, Georgia.
Geogr. Distr. Coast district of South Carolina and Georgia,
 southward into Florida.

***a. Rhithrodontomys lecontei impiger* Bangs.**

Reithrodontomys lecontei impiger Bangs, Proc. Biol. Soc. Wash.,
 XII, 1898, p. 167. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 149. Zoöl. Ser.

DILIGENT HARVEST MOUSE.

Type locality. White Sulphur Springs, Greenbrier County, West
 Virginia.
Geogr. Distr. West Virginia.

b. Rhithrodontomys lecontei dickinsoni (Rhoads).

Reithrodontomys humilis dickinsoni Rhoads, Amer. Nat., xxix, 1895, p. 590.

Reithrodontomys! lecontei dickinsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 150. Zoöl. Ser.

DICKINSON'S HARVEST MOUSE.

Type locality. Willow Oak, Pasco County, Florida.

Geogr. Distr. Southern portion of the Peninsula of Florida.

441. Rhithrodontomys merriami Allen.

Reithrodontomys! merriami Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 119. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 150. Zoöl. Ser.

MERRIAM'S HARVEST MOUSE.

Type locality. Austin Bayou, near Alvin, Brazoria County, Texas.

Geogr. Distr. Coast district of southwestern Louisiana to Brazoria County, Texas.

442. Rhithrodontomys dychei Allen.

Ochetodon humilis Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 185. (nec Aud. & Bachm.)

Reithrodontomys! dychei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 120. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 150. Zoöl. Ser.

DYCHE'S HARVEST MOUSE.

Type locality. Lawrence, Douglas County, Kansas.

Geogr. Distr. Kansas east to St. Louis, Missouri; south to western part of Oklahoma Territory; north to Nebraska and southwestern Iowa.

a. Rhithrodontomys dychei nebrascensis Allen.

Reithrodontomys! dychei nebrascensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 122. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 150. Zoöl. Ser.

NEBRASKA HARVEST MOUSE.

Type locality. Kennedy, Cherry County, Nebraska.

Geogr. Distr. Fremont County, Colorado, north to Custer, Montana, east to central and northeastern Nebraska.

443. *Rhithrodontomys albescens Cary.

Reithrodontomys! albescens Cary, Proc. Biol. Soc. Wash., xvi, 1903, p. 53.

*As the type locality of this form is practically that of *R. d. nebrascensis*, the two probably are not distinct.

WHITISH HARVEST MOUSE.

Type locality. Eighteen miles northwest of Kennedy, Cherry County, Nebraska.

Geogr. Distr. Northern Nebraska. Range unknown.

Genl. Char. Size small; tail short; color pale; ears with two black spots.

Color. Above plain gray, or tinged with buff; sides pale buffy gray; lateral line pinkish or cream buff; sides of nose, lower part of cheeks, throat, forelegs, and under parts pure white; tail bicolor; feet above white.

Measurements. Total length, 125; tail vertebræ, 53.5; hind foot, 16.6. Skull: basal length, 15.7; occipito-nasal length, 19.7; length of nasals, 17.4; zygomatic breadth, 10.5; mastoid breadth, 9.

444. *Rhithrodontomys montanus* (Baird).

Reithrodon! montanus Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 335.

Reithrodontomys! montanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 151. Zool. Ser.

MOUNTAIN HARVEST MOUSE.

Type locality. Upper end of the San Luis Valley, Saguache County, Colorado.

Geogr. Distr. Known only from the type locality.

445. *Rhithrodontomys megalotis* (Baird).

Reithrodon! megalotis Baird, N. Am. Mamm., 1857, p. 451.

Reithrodontomys! aztecus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 79.

Reithrodontomys! megalotis deserti Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 127.

Reithrodontomys! megalotis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 151. Zool. Ser.

Rhithrodontomys megalotis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 259, figs. 43, XLI. Zool. Ser.

BIG-EARED HARVEST MOUSE.

Type locality. Between Janos and San Luis Spring, State of Sonora, Mexico, near boundary of Grant County, New Mexico.

Geogr. Distr. States of Sonora and Chihuahua, Mexico, north to Nevada.

a. *Rhithrodontomys megalotis sestinensis* Allen.

Reithrodontomys! megalotis sestinensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 602.

Rhithrodontomys megalotis sestinensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 260. Zoöl. Ser.

RIO SESTIN MEADOW MOUSE.

Type locality. Rio Sestin, State of Durango, Mexico. Altitude, 7,500 feet.

Geogr. Distr. State of Durango, Mexico. Range unknown.

b. Rhithrodontomys megalotis zacatecæ Merriam.

Reithrodontomys! megalotis zacatecæ Merr., Proc. Wash. Acad. Scien., III, 1901, p. 557.

Rhithrodontomys megalotis zacatecæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 260. Zoöl. Ser.

VALPARAISO HARVEST MOUSE.

Type locality. Valparaiso Mountains, State of Zacatecas, Mexico.

Geogr. Distr. State of Zacatecas, Mexico. Range unknown.

c. Rhithrodontomys megalotis obscurus Merriam.

Reithrodontomys! megalotis obscurus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 558.

Rhithrodontomys megalotis obscurus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 261. Zoöl. Ser.

DUSKY HARVEST MOUSE.

Type locality. Sierra Madre, near Guadalupe y Calvo, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico. Range unknown.

446. Rhithrodontomys australis Allen.

Reithrodontomys! australis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 328.

Rhithrodontomys australis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 259. Zoöl. Ser.

IRAZÚ VOLCANO HARVEST MOUSE.

Type locality. Volcano of Irazú, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

a. Rhithrodontomys australis vulcanius Bangs.

Reithrodontomys! australis vulcanius Bangs, Bull. Mus. Comp. Zoöl., XXXIX, 1902, p. 38.

Rhithrodontomys australis vulcanius Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 259. Zoöl. Ser.

CHIRIQUI HARVEST MOUSE.

Type locality. Volcan de Chiriqui, Chiriqui, Panama. Altitude, 10,300 feet.

Geogr. Distr. Panama. Range unknown.

447. *Rhithrodontomys longicaudus* (Baird).

Reithrodon! longicauda Baird, N. Am. Mamm., 1857, p. 451.

Reithrodontomys! longicaudus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 151. Zoöl. Ser.

Rhithrodontomys longicaudus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 261. Zoöl. Ser.

LONG-TAILED HARVEST MOUSE.

Type locality. Petaluma, Sonora County, California.

Geogr. Distr. Lower California, Mexico, north to California; west to the Sierra Nevada from coast region of Monterey County; north to Mendocino and Humboldt Counties; and in the interior from San Joaquin County, north to Tehama County. Probably farther south irregularly in the Coast and San Bernardino ranges of mountains. (Allen.)

a. *Rhithrodontomys longicaudus pallidus* (Rhoads).

Reithrodontomys! pallidus Rhoads, Amer. Nat., 1893, p. 835.

Reithrodontomys! longicaudus pallidus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 152. Zoöl. Ser.

Rhithrodontomys longicaudus pallidus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 262. Zoöl. Ser.

LOWER CALIFORNIA OR PALLID HARVEST MOUSE.

Type locality. Santa Ysabel, San Jacinto Mountains, San Diego County, California.

Geogr. Distr. Southern California and northern Lower California.

448. *Rhithrodontomys chrysotis* Elliot.

Reithrodontomys! chrysotis Elliot, Pub. Field Columb. Mus., I, 1899, p. 281. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 152. Zoöl. Ser.

GOLDEN-EARED HARVEST MOUSE.

Type locality. Dougherty, Indian Territory.

Geogr. Distr. Known only from the type locality; and Alva, Oklahoma Territory.

449. *Rhithrodontomys catalinae* Elliot.

Rhithrodontomys catalinae Elliot, Pub. Field Columb. Mus., III, 1903, p. 246. Zoöl. Ser.

SANTA CATALINA ISLAND HARVEST MOUSE.

Type locality. Santa Catalina Island, Santa Barbara Islands, California.

Geogr. Distr. Known only from Santa Catalina Island.

Genl. Char. Similar to *R. longicaudus*, but larger; hind foot very much larger.

Color. Top of head and dorsal region brownish black or buff mixed, the black predominating; sides cream buff; lateral line indistinct cream buff; under parts, hands, and feet white, plumbeous of under fur showing; large cream buff spot on breast; tail above blackish, beneath soiled white; ears brown.

Measurements. Total length, 155.7; tail vertebræ, 83.8; hind foot, 19.5.

450. *Rhithrodontomys klamathensis* Merriam.

Reithrodontomys! klamathensis Merr., N. Am. Faun., No. 16, 1899, p. 93. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 152. Zoöl. Ser.

KLAMATH HARVEST MOUSE.

Type locality. Big Spring, Shasta Valley, Siskiyou County, California.

Geogr. Distr. Shasta Valley, California, and Klamath County, Oregon.

451. *Rhithrodontomys arizonensis* Allen.

Reithrodontomys! longicaudus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 320. Ex Arizona. (nec Baird.)

Reithrodontomys! arizonensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 134. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 153. Zoöl. Ser.

ARIZONA HARVEST MOUSE.

Type locality. Chiricahua Mountains, Cochise County, Arizona. Altitude, 8,000 feet.

Geogr. Distr. Southeastern Arizona.

452. *Rhithrodontomys saturatus* Allen and Chapman.

Reithrodontomys! saturatus Allen & Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 201.

Rhithrodontomys saturatus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 262. Zoöl. Ser.

LAS VIGAS HARVEST MOUSE.

Type locality. Las Vigas, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

a. *Rhithrodontomys saturatus cinereus* Merriam.

Reithrodontomys! saturatus cinereus Merr., Proc. Wash. Acad. Scien., 111, 1901, p. 556.

Rhithrodontomys saturatus cinereus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 262. Zoöl. Ser.

CINEREOUS HARVEST MOUSE.

Type locality. Chalchicomula, State of Puebla, Mexico.

Geogr. Distr. State of Puebla, Mexico. Range unknown.

b. *Rhithrodontomys saturatus alticola* Merriam.

Reithrodontomys! saturatus alticola Merr., Proc. Wash. Acad. Scien., III, 1901, p. 556.

Rhithrodontomys saturatus alticola Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 263. Zool. Ser.

MOUNTAIN HARVEST MOUSE.

Type locality. Cerro San Felipe, near Oaxaca City, State of Oaxaca, Mexico. Altitude, 10,000 feet.

Geogr. Distr. State of Oaxaca. Range unknown.

453. *Rhithrodontomys peninsulæ* Elliot.

Rhithrodontomys peninsulæ Elliot, Pub. Field Columb. Mus., III, 1903, p. 164. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 263. Zool. Ser.

PENINSULAR HARVEST MOUSE.

Type locality. San Quentin, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

454. *Rhithrodontomys difficilis* Merriam.

Reithrodontomys! difficilis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 556.

Rhithrodontomys difficilis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 263. Zool. Ser.

CAPTIOUS HARVEST MOUSE.

Type locality. Orizaba, State of Vera Cruz, Mexico. Altitude, 4,500 feet.

Geogr. Distr. State of Vera Cruz. Range unknown.

455. *Rhithrodontomys mexicanus* (Saussure).

Reithrodon! mexicanus Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 109, pl. IX, fig. 1.

Reithrodon! sumichrasti Sauss., Rev. Mag. Zool., 2me Sér., XIII, 1861, p. 3.

Ochetodon mexicanus Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 186.

Rhithrodontomys mexicanus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 264. Zool. Ser.

MEXICAN HARVEST MOUSE.

Type locality. Mountains in State of Vera Cruz.

Geogr. Distr. State of Vera Cruz, Mexico.

a. *Rhithrodontomys mexicanus aurantius* Allen.

Ochetodon mexicanus Coues, Mon. N. Am. Rod., 1877, p. 128.
(Louisiana specimens.)

Reithrodontomys! mexicanus aurantius Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 137.

Reithrodontomys! arizonensis aurantius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 153. Zool. Ser.

GOLDEN HARVEST MOUSE.

Type locality. Lafayette, Lafayette Parish, Louisiana.

Geogr. Distr. Coast region of Texas from Matagorda County northward, and thence eastward to Houma, Louisiana, and north to Beebe, Arkansas.

b. *Rhithrodontomys mexicanus intermedius* Allen.

Reithrodontomys! mexicanus intermedius Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 136.

Reithrodontomys! arizonensis intermedius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 153. Zool. Ser.

Rhithrodontomys mexicanus intermedius Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 264. Zool. Ser.

BROWNSVILLE HARVEST MOUSE.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Northern Mexico, into Texas.

c. *Rhithrodontomys mexicanus fulvescens* Allen.

Reithrodontomys! mexicanus fulvescens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 319.

Rhithrodontomys mexicanus fulvescens Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 264. Zool. Ser.

OPOSURA HARVEST MOUSE.

Type locality. Oposura, State of Sonora, Mexico.

Geogr. Distr. State of Sonora, Mexico. Range unknown.

d. *Rhithrodontomys mexicanus gracilis* Allen & Chapman.

Reithrodontomys! mexicanus gracilis Allen & Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 9.

Rhithrodontomys mexicanus gracilis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 265. Zool. Ser.

CHICHEN ITZA HARVEST MOUSE.

Type locality. Chichen Itza, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico.

456. *Rhithrodontomys laceyi* Allen.

Reithrodontomys! laceyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1896, p. 235. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 153. Zool. Ser.

LACEY'S HARVEST MOUSE.

Type locality. Watson's Ranch, fifteen miles south of San Antonio, Bexar County, Texas.

Geogr. Distr. Southeastern Texas.

457. *Rhithrodontomys tenuis* Allen.

Reithrodontomys! tenuis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 15.

Rhithrodontomys tenuis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 265. Zool. Ser.

SLENDER HARVEST MOUSE.

Type locality. Rosario, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico. Range unknown.

458. *Rhithrodontomys chrysopsis* Merriam.

Reithrodontomys! chrysopsis Merr., Proc. Biol. Soc. Wash., XIII, 1900, p. 152.

Rhithrodontomys chrysopsis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 265. Zool. Ser.

MOUNT POPOCATEPETL HARVEST MOUSE.

Type locality. Mt. Popocatepetl, Mexico.

Geogr. Distr. State of Mexico. Range unknown.

a. *Rhithrodontomys chrysopsis tolucae* Merriam.

Reithrodontomys! chrysopsis tolucae Merr., Proc. Wash. Acad. Scien., III, 1901, p. 549.

Rhithrodontomys chrysopsis tolucae Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 266. Zool. Ser.

VOLCAN TOLUCA HARVEST MOUSE.

Type locality. North slope of the Volcan Toluca, State of Michoacan, Mexico. Altitude, 11,500 feet.

Geogr. Distr. Known only from the type locality.

459. *Rhithrodontomys perotensis* Merriam.

Reithrodontomys! perotensis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 550.

Rhithrodontomys perotensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 266. Zool. Ser.

COFRE DE PEROTE HARVEST MOUSE.

Type locality. Cofre de Perote, State of Vera Cruz, Mexico. Altitude, 9,500 feet.

Geogr. Distr. Known only from the type locality.

460. *Rhithrodontomys orizabæ* Merriam.

Reithrodontomys! orizabæ Merr., Proc. Wash. Acad. Scien., III, 1901, p. 550.

Rhithrodontomys orizabæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 266. Zoöl. Ser.

ORIZABA HARVEST MOUSE.

Type locality. Mount Orizaba, State of Puebla, Mexico.

Geogr. Distr. Known only from the type locality.

461. *Rhithrodontomys colimæ* Merriam.

Reithrodontomys! colimæ Merr., Proc. Wash. Acad. Scien., III, 1901, p. 551.

Rhithrodontomys colimæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 266. Zoöl. Ser.

ALPINE HARVEST MOUSE.

Type locality. Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 12,000 feet.

Geogr. Distr. Known only from the type locality.

a. *Rhithrodontomys colimæ nerterus* Merriam.

Reithrodontomys! colimæ nerterus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 551.

Rhithrodontomys colimæ nerterus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 267. Zoöl. Ser.

COLIMA HARVEST MOUSE.

Type locality. Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 6,500 feet.

Geogr. Distr. Known only from the type locality.

462. *Rhithrodontomys costaricensis* Allen.

Reithrodontomys! costaricensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 139.

Rhithrodontomys costaricensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 267. Zoöl. Ser.

COSTA RICA HARVEST MOUSE.

Type locality. La Carpintera, Costa Rica. Altitude, 6,000 feet.

Geogr. Distr. Costa Rica, Central America. Range unknown.

a. *Rhithrodontomys costaricensis jalapæ* Merriam.

Reithrodontomys! costaricensis jalapæ Merr., Proc. Wash. Acad. Scien., III, 1901, p. 552.

Rhithrodontomys costaricensis jalapæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 267. Zoöl. Ser.

JALAPA HARVEST MOUSE.

Type locality. Jalapa, State of Vera Cruz, Mexico. Altitude, 4,000 feet.

Geogr. Distr. State of Vera Cruz. Range unknown.

463. *Rhithrodontomys goldmani* Merriam.

Reithrodontomys! goldmani Merr., Proc. Wash. Acad. Scien., III, 1901, p. 552.

Rhithrodontomys goldmani Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 268. Zool. Ser.

GOLDMAN'S HARVEST MOUSE.

Type locality. Metlatoyuca, State of Puebla, Mexico. Altitude, 800 feet.

Geogr. Distr. State of Puebla. Range unknown.

464. *Rhithrodontomys rufescens* Allen & Chapman.

Reithrodontomys! rufescens Allen & Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 199.

Rhithrodontomys rufescens Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 268. Zool. Ser.

RUFIOUS HARVEST MOUSE.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

465. *Rhithrodontomys tenuirostris* Merriam.

Reithrodontomys! tenuirostris Merr., Proc. Wash. Acad. Scien., III, 1901, p. 547.

Rhithrodontomys tenuirostris Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 268. Zool. Ser.

SLENDER-NOSED HARVEST MOUSE.

Type locality. Todos Santos, Guatemala. Altitude, 10,000 feet.

Geogr. Distr. Guatemala, Central America. Range unknown.

a. *Rhithrodontomys tenuirostris aureus* Merriam.

Reithrodontomys! tenuirostris aureus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 548.

Rhithrodontomys tenuirostris aureus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 269. Zool. Ser.

CALEL HARVEST MOUSE.

Type locality. Calel, Guatemala. Altitude, 10,200 feet.

Geogr. Distr. Known only from the type locality.

466. *Rhithrodontomys microdon* Merriam.

Reithrodontomys! microdon Merr., Proc. Wash. Acad. Scien., III, 1901, p. 548.

Rhithrodontomys microdon Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 269. Zoöl. Ser.

TODOS SANTOS HARVEST MOUSE.

Type locality. Todos Santos, Guatemala. Altitude, 10,000 feet.

Geogr. Distr. Guatemala. Range unknown.

a. Rhithrodontomys microdon albilabris Merriam.

Reithrodontomys! microdon albilabris Merr., Proc. Wash. Acad. Scien., III, 1901, p. 549.

Rhithrodontomys microdon albilabris Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 269. Zoöl. Ser.

WHITE-LIPPED HARVEST MOUSE.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico. Altitude, 10,000 feet.

Geogr. Distr. State of Oaxaca. Range unknown.

467. *Rhithrodontomys hirsutus* Merriam.

Reithrodontomys! hirsutus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 553.

Rhithrodontomys hirsutus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 269. Zoöl. Ser.

HISPID HARVEST MOUSE.

Type locality. Ameca, State of Jalisco, Mexico. Altitude, 5,500 feet.

Geogr. Distr. State of Jalisco, Mexico. Range unknown.

468. *Rhithrodontomys griseiflavus* Merriam.

Reithrodontomys! griseoflavus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 553.

Rhithrodontomys griseiflavus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 270. Zoöl. Ser.

AMECA HARVEST MOUSE.

Type locality. Ameca, State of Jalisco, Mexico. Altitude, 4,000 feet.

Geogr. Distr. State of Jalisco. Range unknown.

a. Rhithrodontomys griseiflavus helvolus Merriam.

Reithrodontomys! griseoflavus helvolus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 554.

Rhithrodontomys griseiflavus helvolus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 270. Zoöl. Ser.

OAXACA HARVEST MOUSE.

Type locality. Near Oaxaca City, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca. Range unknown.

469. *Rhithrodontomys levipes* Merriam.

Reithrodontomys! levipes Merr., Proc. Wash. Acad. Scien., III, 1901, p. 554.

Rhithrodontomys levipes Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 270. Zool. Ser.

SAN SEBASTIAN HARVEST MOUSE.

Type locality. San Sebastian, State of Jalisco, Mexico. Altitude, 3,000 feet.

Geogr. Distr. State of Jalisco, Mexico. Range unknown.

a. *Rhithrodontomys levipes otus* Merriam.

Reithrodontomys! levipes otus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 555.

Rhithrodontomys levipes otus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 271. Zool. Ser.

LARGE-EARED HARVEST MOUSE.

Type locality. Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 6,500 feet.

Geogr. Distr. State of Jalisco, Mexico. Range unknown.

b. *Rhithrodontomys levipes toltecus* Merriam.

Reithrodontomys! levipes toltecus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 555.

Rhithrodontomys levipes toltecus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 271. Zool. Ser.

TLALPAM HARVEST MOUSE.

Type locality. Tlalpam, Federal District, Mexico.

Geogr. Distr. Known only from the type locality.

470. *Rhithrodontomys inexpectatus* Elliot.

Rhithrodontomys inexpectatus Elliot, Pub. Field Columb. Mus., III, 1903, p. 145. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 271. Zool. Ser.

PATZCUARO HARVEST MOUSE.

Type locality. Patzcuaro, State of Michoacan, Mexico.

Geogr. Distr. Known only from the type locality.

471. *Rhithrodontomys dorsalis* Merriam.

Reithrodontomys! dorsalis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 557.

Rhithrodontomys dorsalis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 272. Zool. Ser.

GRAY-BACKED HARVEST MOUSE.

Type locality. Caelé, Guatemala.

Geogr. Distr. Guatemala. Range unknown.

472. Rhithrodontomys creper Bangs.

Reithrodontomys! creper Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 39.

Rhithrodontomys creper Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 272. Zool. Ser.

DUSKY HARVEST MOUSE.

Type locality. Volcan de Chiriqui, Chiriqui, Panama. Altitude, 11,000 feet.

Geogr. Distr. Panama, Central America. Range unknown.

Genus 71. Acodon.

Akodon! Meyen, Nova Acta Phys. Med. Acad. Cæs. Leop.-Carol., xvi, 1833, p. 599, tab. XLIII, fig. 1. Type *Akodon boliniense* Meyen.

Abrothrix (sic) Waterh., Proc. Zool. Soc., 1837, p. 21.

473. Acodon teguina (Alston).

Hesperomys teguina Alston, Proc. Zool. Soc., 1876, p. 755.

Acodon teguina Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 273, figs. 44, XLII. Zool. Ser.

ALSTON'S MOUSE.

Type locality. Coban, Guatemala.

Geogr. Distr. Guatemala. Range unknown.

Acodon teguina apricus Bangs.

Akodon! teguina apricus Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 40.

Acodon teguina apricus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 274. Zool. Ser.

BOQUETE MOUSE.

Type locality. Boquete, Chiriqui, Panama. Altitude, 4,000-5,000 feet.

Geogr. Distr. Panama, Central America. Range unknown.

474. Acodon irazu Allen.

Akodon! irazu Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 46.

Acodon irazu Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 274. Zool. Ser.

VOLCANO OF IRAZU MOUSE.

Type locality. Volcan de Irazu, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

475. *Acodon xerampelinus* Bangs.

Akodon! xerampelinus Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 41.

Acodon xerampelinus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 275. Zool. Ser.

BANGS' RED MOUSE.

Type locality. Volcan de Chiriqui, Chiriqui, Panama. Altitude, 10,300 feet.

Geogr. Distr. Panama, Central America. Range unknown.

Subfamily III. *Neotominæ*. Wood Rats.**Genus 72. *Neotoma*.**

Neotoma Say and Ord, Journ. Acad. Nat. Scien. Phil., iv, 1825, p. 345, pls. xxi, xxii. *Type Mus floridana* Ord.

476. *Neotoma cumulator* Mearns.

Neotoma cumulator Mearns, Proc. U. S. Nat. Mus., 1898, p. 503.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 154.

Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. 1, 1904, p. 280. Zool. Ser.

COLLECTOR WOOD RAT.

Type locality. Old Fort Yuma, San Diego County, California.

Geogr. Distr. Lower California and State of Sonora, Mexico; southern California.

477. *Neotoma palatina* Goldman.

Neotoma palatina Goldm., Proc. Biol. Soc. Wash., xviii, 1905, p. 27.

BOLAÑOS WOOD RAT.

Type locality. Bolaños, State of Jalisco, Mexico. Altitude, 2,800 feet.

Genl. Char. Size large; ears small; spheno-palatine vacuities closed; vomer prolonged as a thin plate along median line of presphenoid, partly dividing posterior nares, and ending in a point at suture between presphenoid and basisphenoid; bullæ small and heavy.

Color. Above pale cinnamon, darker on dorsal region; cheeks and sides suffused with buffy; under parts dull white; hairs on the throat, breast, and inguinal region white to the roots; ears brownish; feet white; tail scantily haired, above blackish, beneath soiled whitish.

Measurements. Length, head and body, 187; tail vertebræ, incomplete, 60; hind foot, 37.

478. *Neotoma fuscipes* Baird.

Neotoma fuscipes Baird, N. Am. Mamm., 1857, p. 495. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 158. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 278. Zoöl. Ser.

Neotoma monochroura! Rhoads, Amer. Nat., XXVIII, 1894, p. 67.

Neotoma splendens True, Proc. U. S. Nat. Mus., 1894, p. 353.

DUSKY-FOOTED WOOD RAT.

Type locality. Petaluma, Sonoma County, California.

Geogr. Distr. Coast region of California and Oregon from Monterey Bay to the Columbia River.

a. *Neotoma fuscipes macrotis* (Thomas).

Neotoma macrotis Thomas, Ann. Mag. Nat. Hist., 6th Ser., XII, 1893, p. 234.

Neotoma fuscipes macrotis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 159. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 279. Zoöl. Ser.

Neotoma macrotis simplex True, Proc. U. S. Nat. Mus., 1894, p. 354.

LARGE-EARED WOOD RAT.

Type locality. San Diego, San Diego County, California.

Geogr. Distr. Lower California, Mexico, and southern California.

b. *Neotoma fuscipes streatori* Merriam.

Neotoma fuscipes streatori Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 124. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 159. Zoöl. Ser.

STREATOR'S WOOD RAT.

Type locality. Carbondale, Amador County, California.

Geogr. Distr. Coast region of California, south of Monterey Bay.

c. *Neotoma fuscipes dispar* Merriam.

Neotoma fuscipes dispar Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 124. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 160. Zoöl. Ser.

DISSIMILAR WOOD RAT.

Type locality. Lone Pine, Owens Valley, Inyo County, California.

Geogr. Distr. East base of Sierra Nevada in Owens Valley, and western edge of Mohave Desert, California.

d. *Neotoma fuscipes annectens* Elliot.

Neotoma fuscipes annectens Elliot, Pub. Field. Columb. Mus., I, 1898, p. 201. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 160. Zoöl. Ser.

ALLIED WOOD RAT.

Type locality. Portola, San Mateo County, California.

Geogr. Distr. Coast line of California south of San Francisco Bay to Monterey County.

e. Neotoma fuscipes affinis Elliot.

Neotoma fuscipes affinis Elliot, Pub. Field Columb. Mus., I, 1898, p. 202. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 160. Zoöl. Ser.

RELATED WOOD RAT.

Type locality. Alum Rock Park, Santa Clara County, California.

Geogr. Distr. Known only from the type locality.

479. *Neotoma distincta* Bangs.

Neotoma distincta Bangs, Proc. Biol. Soc. Wash., xvi, 1903, p. 89. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 278. Zoöl. Ser.

TEXOLO WOOD RAT.

Type locality. Texolo, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

480. *Neotoma mohavensis* (Elliot).

Neotoma fuscipes mohavensis Elliot, Pub. Field Columb. Mus., III, 1903, p. 246. Zoöl. Ser.

MOHAVE DESERT WOOD RAT.

Type locality. Oro Grande, Mohave Desert, San Bernardino County, California.

Geogr. Distr. Mohave Desert, southern California.

Genl. Char. Smaller than *N. f. macrotis*, more grayish in color, and with smaller feet.

Color. Upper parts dark drab gray, darkest on top of head and on the dorsal line; sides paler, inclined to buffy; arms buffy gray; thighs light gray or dark plumbeous; chin, throat, inner sides of fore legs, thighs, and ventral region, with the lower parts of hands and feet white; hairs on sides plumbeous at base; all the others on under parts white to the roots; tail above blackish brown, beneath whitish brown, line of demarcation very distinct; ears naked, dark brown.

Measurements. Total length, 384; tail vertebræ, 173; hind foot, 40; ear from notch, 31. Skull: occipito-nasal length, 47; Hensel, 39; zygomatic width, 24; interorbital constriction, 5; length of nasals, 16; palatal length, 21; length of upper tooth row, 9; length of mandible, 31; length of lower tooth row, 8.

481. *Neotoma cnemophila* (Elliot).

Neotoma fuscipes cnemophila Elliot, Pub. Field Columb. Mus., III, 1904, p. 267. Zoöl. Ser.

MOUNT PINOS WOOD RAT.

Type locality. Mt. Pinos, Lockwood Valley, Ventura County, California.

Geogr. Distr. Southern California. Range unknown.

Genl. Char. Size large, tail long, black above; general line of upper parts buff.

Color. Upper parts and sides buff, with base of hairs dark plumbeous; limbs mixed plumbeous and buff; chin, throat, and between thighs white; rest of under parts white to root of hairs, save a line along the sides; hands and feet white; wrists and ankles dusky; tail above and on sides dusky, beneath grayish white; ears dark brown.

Measurements. Total length, 380; tail vertebræ, 176; hind foot, 39.5; ear, 33. Skull: occipito-nasal length, 46; Hensel, 38; zygomatic width, 23; interorbital constriction, 5.6; width of braincase, 18; length of nasals, 18.5; palatal length, 19; length of incisive foramen, 9; length of upper tooth row, 9; length of mandible, angle to incisors, 23; length of lower tooth row, 8.

482. *Neotoma torquata* Ward.

Neotoma torquata Ward, Amer. Nat., xxv, 1891, p. 160. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 279. Zool. Ser.

COLLARED WOOD RAT.

Type locality. Between Tetela del Volcan and Zacualpan Amilpas, State of Morelos, Mexico.

Geogr. Distr. Known only from the type locality.

483. *Neotoma bryanti* Merriam.

Neotoma bryanti Merr., Amer. Nat., xxi, 1887, p. 191. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 280. Zool. Ser.

CERROS ISLAND WOOD RAT.

Type locality. Cerros or Cedros Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

484. *Neotoma micropus* Baird.

Neotoma micropus Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 333. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 155. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 281, figs. 45, XLIII. Zool. Ser. *Neotoma micropus canescens* Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 285.

SMALL-FOOTED WOOD RAT.

Type locality. Charco Escondido, State of Tamaulipas, Mexico.

Geogr. Distr. States of Coahuila and Tamaulipas, Mexico, northward to Oklahoma and New Mexico.

a. Neotoma micropus surberi Elliot.

Neotoma micropus surberi Elliot, Pub. Field Columb. Mus., 1, 1899, p. 279. Zoöl. Ser. *Id. Syn. N. Am. Mamm.*, F. C. M. Pub., 11, 1901, p. 156. Zoöl. Ser.

SURBER'S WOOD RAT.

Type locality. Cañon three miles west of Alva, Oklahoma Territory.

Geogr. Distr. Northwestern Oklahoma.

b. Neotoma micropus littoralis Goldman.

Neotoma micropus littoralis Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 31.

COAST WOOD RAT.

Type locality. Alta Mira, State of Tamaulipas, Mexico. Altitude, 100 feet.

Genl. Char. Similar to *N. micropus*; but somewhat smaller.

Color. Above grayish brown, darkest on median line; under parts white; fur plumbeous at base except on throat, breast, and inguinal regions; foot white; tail blackish above, whitish below; ears brownish.

Measurements. Total length, 366; tail vertebræ, 166; hind foot, 39.

c. Neotoma micropus planiceps Goldman.

Neotoma micropus planiceps Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 32.

FLAT-HEADED WOOD RAT.

Type locality. Rio Verde, State of San Luis Potosi, Mexico. Altitude, 3,000 feet.

Genl. Char. Slightly smaller than *N. micropus*; color more buffy; skull flatter; "nasals pointed, deeply emarginate posteriorly."

Color. Above pale buffy gray, darkest on median line; under parts white; base of hairs plumbeous along sides of belly and inner surface of hind legs; nose, eyelids, and ankles dusky; feet white; tail brownish black above, grayish below.

Measurements. Total length, 351; tail vertebræ, 167; hind foot, 38.

485. Neotoma floridana (Ord).

Mus floridana Ord, Bull. Soc. Philom. Paris, 1818, p. 181.

Arvicola floridana Harl., Faun. Amer., 1825, p. 141.

Neotoma floridana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 157, fig. 34. Zoöl. Ser.

FLORIDA WOOD RAT.

Type locality. St. John's River, near Jacksonville, Duval County, Florida.

Geogr. Distr. South Atlantic and Gulf Coasts, and lower Mississippi Valley.

a. Neotoma floridana attwateri (Mearns).

Neotoma attwateri Mearns, Proc. U. S. Nat. Mus., 1897, p. 721.

Neotoma floridana attwateri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 157. Zoöl. Ser.

ATTWATER'S WOOD RAT.

Type locality. Lacey's Ranch, Turtle Creek, Kerr County, Texas.

Geogr. Distr. Southern Texas. Range unknown.

b. Neotoma floridana rubida Bangs.

Neotoma floridana rubida Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 185.

Neotoma campestris rubida Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 156. Zoöl. Ser.

REDDISH WOOD RAT.

Type locality. Gibson, Terrebonne Parish, Louisiana.

Geogr. Distr. Lower Mississippi Valley; east to western Florida.

486. *Neotoma baileyi* Merriam.

Neotoma baileyi Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 123.

Neotoma campestris baileyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 156. Zoöl. Ser.

BAILEY'S WOOD RAT.

Type locality. Valentine, Cherry County, Nebraska.

Geogr. Distr. Nebraska, Kansas, and Oklahoma Territory.

487. *Neotoma pennsylvanica* Stone.

Neotoma pennsylvanica Stone, Proc. Acad. Nat. Scien. Phil., 1893, p. 16. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 157. Zoöl. Ser.

PENNSYLVANIA WOOD RAT.

Type locality. Lewis Cave, South Mountain, Cumberland County, Pennsylvania.

Geogr. Distr. New York to Virginia in the Alleghany Mountains.

488. *Neotoma ferruginea* Tömes.

Neotoma ferruginea Tömes, Proc. Zoöl. Soc., 1861, p. 282. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 280. Zoöl. Ser.

RUSTY WOOD RAT.

Type locality. Dueñas, Guatemala.

Geogr. Distr. Tehuantepec, State of Oaxaca, Mexico, south into Guatemala.

a. *Neotoma ferruginea ochracea* Goldman.

Neotoma ferruginea ochracea Goldm., Proc. Biol. Soc. Wash.,
XVIII, 1905, p. 30.

ATEMAJAC WOOD RAT.

Type locality. Atemajac, near Guadalajara, State of Jalisco, Mexico. Altitude, 4,000 feet.

Genl. Char. Smaller than *N. ferruginea*, tail sharply bicolor; skull with comparative differences.

Color. Above light ochraceous buff, darkest on dorsal region; under parts dingy white washed with buff; pectoral region ochraceous buff; nose and upper lip grayish white; tail brownish above, whitish below.

Measurements. Total length, 348; tail vertebræ, 161; hind foot, 38.

b. *Neotoma ferruginea solitaria* Goldman.

Neotoma ferruginea solitaria Goldm., Proc. Biol. Soc. Wash.,
XVIII, 1905, p. 31.

NENTON WOOD RAT.

Type locality. Nenton, Guatemala.

Genl. Char. Similar to *N. ferruginea* but smaller; outer side of forearms and hind legs not dusky. Differences of skull comparative.

Color. Above tawny ochraceous; top of head ochraceous buff; outer sides of forearms and hind legs blackish; under parts dull white; chin and throat pure white; fore feet white; hind feet clouded with dusky to toes which are white; tail brownish black above, dull gray beneath; tip brownish.

Measurements. Total length, 338; tail vertebræ, 156; hind foot, 35.

489. *Neotoma pinetorum* Merriam.

Neotoma pinetorum Merr., Proc. Biol. Soc. Wash., VIII, 1893,
p. 111. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 158. Zool. Ser.

PINE WOOD RAT.

Type locality. San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Pine covered plateau of Arizona.

490. *Neotoma nelsoni* Goldman.

Neotoma nelsoni Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 29.

NELSON'S WOOD RAT.

Type locality. Perote, State of Vera Cruz, Mexico.

Genl. Char. Size large; similar to *N. leucodon*, but darker; palate shorter than incisor foramina and with short median projection; premaxillæ reaching beyond nasals.

Color. Above pale cinnamon mixed with Prout's brown; cheeks and middle of face grayish brown; under parts dull white; base of fur plumbeous; pectoral spot white to roots of hairs; tail smoky brown above, paler beneath.

Measurements. Total length, 335; tail vertebræ, 145; hind foot, 37.

491. *Neotoma leucodon* Merriam.

Neotoma leucodon Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 120.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 281. Zoöl. Ser.

WHITE-TOOTHED WOOD RAT.

Type locality. San Luis Potosi, State of San Luis Potosi, Mexico.

Geogr. Distr. States of Zacatecas, San Luis Potosi, and Vera Cruz, Mexico, from Berriozabal to Perote.

a. *Neotoma leucodon zacatecæ* Goldman.

Neotoma leucodon zacatecæ Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 30.

PLATEADO WOOD RAT.

Type locality. Plateado, State of Zacatecas, Mexico. Altitude, 7,600 feet.

Genl. Char. Similar to *N. leucodon* but darker; skull more arched; rostrum more decurved; frontals longer; upper incisors smaller.

Color. Above pale cinnamon, darkest on dorsal line, redder on rump and lightest on cheeks and sides; chest and inguinal region pure white; belly dull creamy white; feet white; upper lip dusky; tail brownish black above to white beneath.

Measurements. Total length, 358; tail vertebræ, 162; hind foot, 37.

492. *Neotoma latifrons* Merriam.

Neotoma latifrons Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 121.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 282. Zoöl. Ser.

QUERENDARO WOOD RAT.

Type locality. Querendaro, State of Michoacan, Mexico.

Geogr. Distr. Valley of Querendaro, south side of Lake Cuitzeo, State of Michoacan, Mexico. Range unknown.

493. *Neotoma mexicana* Baird.

Neotoma mexicana Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 333. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 158. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 282. Zoöl. Ser.

MEXICAN WOOD RAT.

Type locality. Mountains near city of Chihuahua, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico north into New Mexico and Texas, in latter state the southwestern part from Davis Mountains to Paisano.

a. *Neotoma mexicana bullata* Merriam.

Neotoma mexicana bullata Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 122. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 158. Zoöl. Ser.

SANTA CATALINA WOOD RAT.

Type locality. Santa Catalina Mountains, southeastern Arizona.

Geogr. Distr. Santa Catalina Mountains, Arizona.

b. *Neotoma mexicana madrensis* Goldman.

Neotoma mexicana madrensis Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 31.

SIERRA MADRE WOOD RAT.

Type locality. Sierra Madre, near Guadalupe y Calvo, State of Chihuahua, Mexico. Altitude, 7,000 feet.

Genl. Char. Smaller than *N. mexicana*; color different.

Color. Above pale cinnamon, darkest on dorsal region, beneath dull white; fur plumbeous at base; axillæ ochraceous buff; fore and hind feet white; tail brownish above, grayish beneath.

Measurements. Total length, 320; tail vertebræ, 150; hind foot, 33.

494. *Neotoma navus* Merriam.

Neotoma navus Merr., Proc. Biol. Soc. Wash., XVI, 1903, p. 47.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 282. Zoöl. Ser.

ACTIVE WOOD RAT.

Type locality. Sierra Guadalupe, State of Coahuila, Mexico.

Geogr. Distr. State of Coahuila, Mexico. Range unknown.

495. *Neotoma sinaloæ* Allen.

Neotoma sinaloæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898,

p. 149. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 283. Zoöl. Ser.

SINALOA WOOD RAT.

Type locality. Tatameles, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa. Range unknown.

496. *Neotoma arenacea* Allen.

Neotoma arenacea Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898,

p. 150. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 283. Zool. Ser.

LOWER CALIFORNIA WOOD RAT.

Type locality. San José del Cabo, Lower California, Mexico.

Geogr. Distr. Cape Region, Lower California, Mexico.

497. *Neotoma nudicauda* Goldman.

Neotoma nudicauda Goldm., Proc. Biol. Soc. Wash., XVIII, 1905,

p. 28.

NAKED-TAILED WOOD RAT.

Type locality. Carmen Island, Lower California, Mexico.

Genl. Char. Similar to *N. arenacea* but paler, with comparative differences in cranial characters.

Color. Above pale grayish buff, slightly darker on back, and the sides tinged with brownish; under parts white, base of hairs plumbeous on belly; feet white, tail bicolor, brownish on upper third, whitish on lower two-thirds; ears grayish brown.

Measurements. Total length, 330; tail vertebræ, 91; hind foot, 39.

498. *Neotoma anthonyi* Allen.

Neotoma anthonyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898,

p. 151. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 283. Zool. Ser.

TODOS SANTOS WOOD RAT.

Type locality. Todos Santos Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

499. *Neotoma martinensis* Goldman.

Neotoma martinensis Goldm., Proc. Biol. Soc. Wash., XVIII, 1905,

p. 28.

SAN MARTIN ISLAND WOOD RAT.

Type locality. San Martin Island, Lower California, Mexico.

Genl. Char. Size medium; color resembling that of *N. anthonyi*; Skull: temporal ridges faint, widely separated; nasal long, narrowing abruptly posteriorly, extending beyond lachrymals; frontal region constricted anteriorly, without well-developed ridges; bullæ small; meatus large, widely open.

Color. Above grayish brown, mixed with dusky on dorsal region; sides suffused with pale buff; under parts creamy white, base of fur

plumbeous; upper sides of forearms dusky brown; outer sides of hind legs and inner sides of ankles blackish; feet white; tail above brownish black, beneath grayish.

Measurements. Total length, 342; tail vertebræ, 167; hind foot, 35.7.

500. *Neotoma grandis* (Elliot).

Neotoma desertorum grandis Elliot, Pub. Field Columb. Mus., III, 1903, p. 247. Zoöl. Ser.

CAMERON LAKE WOOD RAT.

Type locality. Cameron Lake, Sierra Nevada, Kern County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *N. desertorum*, but larger; tail more hairy and blacker above.

Color. Upper parts mixed buff and black; sides and thighs bright buff with less black; nose and sides of face buff; under parts and feet white; under fur along sides and thighs plumbeous; hairs on throat, chest, and middle of ventral surface white to the roots; tail very hairy, black above, white beneath; ears pale brown, the tuft of hair at base succeeded by a band of black hairs near middle of ear.

Measurements. Total length, 385; tail vertebræ, 185; hind foot, 38; ear, 30. Skull: total length, 47; Hensel, 40; zygomatic width, 23; interorbital constriction, 6; length of nasals, 17; palatal length, 21; length of upper molar series, 8; length of mandible, 30; length of lower molar series, 9.

501. *Neotoma desertorum* Merriam.

Neotoma desertorum Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 125.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 161.

Zoöl. Ser.

DEATH VALLEY WOOD RAT.

Type locality. Furnace Creek, Death Valley, Inyo County, California.

Geogr. Distr. Mohave, Colorado, and Sonoran Deserts of southeastern California, western Nevada, and western Utah, north to east Humboldt Valley, and Kelton, Utah.

a. *Neotoma desertorum sola* Merriam.

Neotoma desertorum sola Merr., Proc. Biol. Soc. Wash., IX, 1894,

p. 126. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 161. Zoöl. Ser.

SOLITARY WOOD RAT.

Type locality. San Emigdio, Kern County, California.

Geogr. Distr. Head of San Joaquin Valley, California.

502. *Neotoma lepida* Thomas.

Neotoma lepida Thomas, Ann. Mag. Nat. Hist., 6th Ser., XII, 1893, p. 235.

Neotoma cinerea lepida Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 164. Zoöl. Ser.

NEAT BUSHY-TAILED WOOD RAT.

Type locality. Williams Spring, about lat. 40°, long. 113°, just south of Champlin Mts., Juab County, Utah. Altitude, 4,558 feet.

Geogr. Distr. Utah. Range unknown.

503. *Neotoma stephensi* Goldman.

Neotoma stephensi Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 32.

STEPHENS' WOOD RAT.

Type locality. Hualpai Mountains, Arizona. Altitude, 6,300 feet.

Genl. Char. Size small. Similar to *N. lepida*, hind foot larger; front upper molar with antero-internal sulcus obsolete. Compared with *N. lepida* the tooth row is longer; interparietal larger and bullæ smaller.

Color. Above grayish buff, palest on head; cheeks and sides pinkish buff; dorsal region mixed with brownish; under parts washed with pinkish buff; pectoral and inguinal regions, sometimes also the throat, pure white; feet white, ankles dusky; tail grayish brown above, paler beneath; ears grayish brown.

Measurements. Total length, 310; tail vertebræ, 139; hind foot, 31.

504. *Neotoma fallax* Merriam.

Neotoma fallax Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 123.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 161. Zoöl. Ser.

DECEITFUL WOOD RAT.

Type locality. Gold Hill, Boulder County, Colorado.

Geogr. Distr. Eastern base of Rocky Mountains in Colorado, to an altitude of 7,000 feet.

505. *Neotoma intermedia* Rhoads.

Neotoma intermedia Rhoads, Amer. Nat., XXVIII, 1894, p. 69.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 161.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 284. Zoöl. Ser.

Neotoma californica Price, Proc. Calif. Acad. Scien., 1894, p. 154, pl. XI.

RHOADS' WOOD RAT.

Type locality. Dulzura, San Diego County, California.

Geogr. Distr. Lower California and southern California south of the Bay of Monterey.

a. Neotoma intermedia melanura Merriam.

Neotoma intermedia melanura Merr., Proc. Biol. Soc. Wash., ix, 1894, p. 126. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 284. Zoöl. Ser.

BLACK-TAILED WOOD RAT.

Type locality. Ortiz, State of Sonora, Mexico.

Geogr. Distr. State of Sonora, Mexico, near west base of the Sierra Madre.

b. Neotoma intermedia angusticeps Merriam.

Neotoma intermedia angusticeps Merr., Proc. Biol. Soc. Wash., ix, 1894, p. 127. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 162. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 285. Zoöl. Ser.

NARROW-HEADED WOOD RAT.

Type locality. Southwest corner of Grant County, New Mexico.

Geogr. Distr. Southwestern New Mexico into the State of Chihuahua, Mexico, northwestern part.

c. Neotoma intermedia gilva Rhoads.

Neotoma intermedia gilva Rhoads, Amer. Nat., xxviii, 1894, p. 70. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 162. Zoöl. Ser.

Neotoma venusta True, Proc. U. S. Nat. Mus., 1894, p. 354.

YELLOW WOOD RAT.

Type locality. Banning, San Bernardino County, California.

Geogr. Distr. San Gorgonio Pass and Mohave Desert, San Bernardino County, California.

d. Neotoma intermedia albigula (Hartley).

Neotoma albigula Hartley, Proc. Calif. Acad. Scien., 2d Ser., iv, 1894, p. 157, pl. xii.

Neotoma intermedia albigula Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 162. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 285. Zoöl. Ser.

WHITE-THROATED WOOD RAT.

Type locality. Vicinity of Fort Lowell, near Tucson, Pima County, Arizona.

Geogr. Distr. Southern and western Arizona south into the States of Sonora and Coahuila, Mexico.

e. Neotoma intermedia durangæ Allen.

Neotoma intermedia durangæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 602. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 285. Zoöl. Ser.

DURANGO WOOD RAT.

Type locality. San Gabriel, State of Durango, Mexico. Altitude, 7,000 feet.

Geogr. Distr. State of Durango, Mexico. Range unknown.

506. *Neotoma campestris* Allen.

Neotoma campestris Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 322. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 150. Zoöl. Ser.

FIELD WOOD RAT.

Type locality. Pendennis, Lane County, Kansas.

Geogr. Distr. Kansas and Colorado.

507. *Neotoma bella* Bangs.

Neotoma bella Bangs, Proc. Biol. Soc. Wash., XII, 1899, p. 66. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 429. Zoöl. Ser.

BEAUTIFUL WOOD RAT.

Type locality. Palm Springs, Riverside County, California.

Geogr. Distr. Mohave and Colorado Deserts and San Bernardino Mountains, southeastern California.

a. Neotoma bella felipensis Elliot.

Neotoma bella felipensis Elliot, Pub. Field Columb. Mus., III, 1903, p. 217. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 286. Zoöl. Ser.

SAN FELIPE DESERT RAT.

Type locality. San Felipe, Gulf of California, Lower California, Mexico.

Geogr. Distr. Known only from the type locality, and Palomar in the Hanson Laguna Mountains.

508. *Neotoma montezumæ* Goldman.

Neotoma montezumæ Goldm., Proc. Biol. Soc. Wash., XVIII, 1905, p. 29.

MONTEZUMA WOOD RAT.

Type locality. Zimapan, State of Hidalgo, Mexico. Altitude, 7,500 feet.

Genl. Char. Resembling *N. i. melanura* but darker, with comparative differences in crania.

Color. Above dull ochraceous buff; palest on head and sides, mixed with blackish hairs; under parts white to roots on throat, chest, and inguinal region, rest plumbeous at base of fur; nose, upper side of forearms and outer side of legs, grayish brown; feet white, tail above blackish, beneath whitish; ears brownish.

Measurements. Length head and body, 181; tail vertebræ, 91, broken; hind foot, 39.

509. *Neotoma orizabæ* Merriam.

Neotoma orizabæ Merr., Proc. Biol. Soc. Wash., ix, 1894, p. 122.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 286. Zoöl. Ser.

ORIZABA WOOD RAT.

Type locality. Mt. Orizaba, State of Puebla, Mexico.

Geogr. Distr. States of Puebla, Tlaxcala, and Vera Cruz, Mexico.

510. *Neotoma tenuicauda* Merriam.

Neotoma tenuicauda Merr., Proc. Biol. Soc. Wash., vii, 1892,

p. 169. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 286. Zoöl. Ser.

SLENDER-TAILED WOOD RAT.

Type locality. North slope of the Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 12,000 feet.

Geogr. Distr. Sierra Nevada de Colima, State of Jalisco, Mexico.

511. *Neotoma picta* Goldman.

Neotoma picta Goldm., Proc. Biol. Soc. Wash., xvii, 1904, p. 79.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 287. Zoöl. Ser.

PAINTED WOOD RAT.

Type locality. Chilpancingo, State of Guerrero, Mexico.

Geogr. Distr. State of Guerrero, Mexico. Range unknown.

512. *Neotoma isthmica* Goldman.

Neotoma isthmica Goldm., Proc. Biol. Soc. Wash., xvii, 1904,

p. 80. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 287. Zoöl. Ser.

ISTHMIAN WOOD RAT.

Type locality. Huilotepec, eight miles south of Tehuantepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca. Range unknown.

513. *Neotoma parvidens* Goldman.

Neotoma parvidens Goldm., Proc. Biol. Soc. Wash., xvii, 1904,

p. 81. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 288. Zoöl. Ser.

JUQUILA WOOD RAT.

Type locality. Juquila, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

514. *Neotoma tropicalis* Goldman.

Neotoma tropicalis Goldm., Proc. Biol. Soc. Wash., xvii, 1904, p. 81. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 288. Zool. Ser.

TROPICAL WOOD RAT.

Type locality. Totontepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

515. *Neotoma goldmani* Merriam.

Neotoma goldmani Merr., Proc. Biol. Soc. Wash., viii, 1903, p. 48. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 288. Zool. Ser.

GOLDMAN'S WOOD RAT.

Type locality. Saltillo, State of Coahuila, Mexico.

Geogr. Distr. Saltillo and Jaral, State of Coahuila, Mexico. Range unknown.

516. *Neotoma fulviventer* Merriam.

Neotoma fulviventer Merr., Proc. Biol. Soc. Wash., ix, 1904, p. 121. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 288. Zool. Ser.

FULVOUS-BELLIED WOOD RAT.

Type locality. Toluca Valley, State of Mexico, Mexico.

Geogr. Distr. State of Mexico, Mexico. Range unknown.

Genus 73. *Teonoma*. Bushy-tailed Wood Rats.

Teonoma Gray, List of Spec. Mamm. Brit. Mus., 1843, p. 117. Type *Myoxus drummondi* Richardson.

517. *Teonoma cinerea* (Ord).

Mus cinerea Ord, Guth. Geog., 2d Am. ed., ii, 1815, p. 292.

Neotoma cinerea Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 163, fig. 35. Zool. Ser.

GRAY BUSHY-TAILED WOOD RAT.

Type locality. Near Great Falls, Cascade County, Montana.

Geogr. Distr. Northern Rocky Mountain region from Utah to Wyoming; east to the Black Hills and plains of North Dakota, west of the Missouri River; west in southern British Columbia to Cascade Range, and south through the Sierra Nevada to Mt. Whitney in southern California.

a. *Teonoma cinerea drummondi* (Richardson).

Myoxus drummondi Rich., Zool. Journ., III, 1828, p. 517.

Neotoma cinerea drummondi Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 164. Zool. Ser.

DRUMMOND'S BUSHY-TAILED WOOD RAT.

Type locality. Rocky Mountains, British Columbia, Canada, N.

Lat. 57°.

Geogr. Distr. Western Canada. Range unknown.

b. *Teonoma cinerea occidentalis* (Baird).

Neotoma occidentalis Baird, Proc. Acad. Nat. Scien. Phil., 1855,

p. 335.

Neotoma cinerea occidentalis Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 164. Zool. Ser.

WESTERN BUSHY-TAILED WOOD RAT.

Type locality. Shoalwater Bay, Pacific County, Washington.

Geogr. Distr. Pacific coast region of Oregon and Washington and thence easterly to the Snake Plains of central Idaho.

c. *Teonoma cinerea columbiana* (Elliot).

Neotoma cinerea columbiana Elliot, Pub. Field Columb. Mus., I,

1899, p. 255. (Footnote.) Zool. Ser. *Id.* Syn. N. Am.

Mamm., F. C. M. Pub., II, 1901, p. 165. Zool. Ser.

BRITISH COLUMBIA BUSHY-TAILED WOOD RAT.

Type locality. Ducks, British Columbia, Canada.

Geogr. Distr. Western British Columbia, Canada. Range unknown.

518. *Teonoma saxamans* (Osgood).

Neotoma saxamans Osgood, N. Am. Faun., No. 19, 1900, p. 33.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append.,

p. 429. Zool. Ser.

ROCK-LOVING WOOD RAT.

Type locality. Bennett City, Lake Bennett, British Columbia, Canada.

Geogr. Distr. White Pass to the Semenow Hills, Alaska.

519. *Teonoma acraea* (Elliot).

Teonoma cinerea acraea Elliot, Pub. Field Columb. Mus., III, 1903,

p. 247. Zool. Ser.

MOUNTAIN BUSHY-TAILED WOOD RAT.

Type locality. Hot Springs, Long Cañon, Mount Whitney, Inyo County, California. Altitude, 8,000 feet.

Geogr. Distr. Mount Whitney, Inyo County, California. Range unknown.

Genl. Char. Similar to *T. cinerea* but much paler; tail paler; feet smaller.

Color. Upper parts pinkish buff lined with black on top of the head and dorsal region, lightest on rump; sides of face and flanks pinkish buff, with very little black showing, this color extending over shoulders and thighs; orbital ring black; entire under parts, hands, and feet white; base of fur on sides only, plumbeous; tail above like back, slightly darker towards tip, beneath yellowish white; ears naked, dark brown; soles of feet naked.

Measurements. Total length, 360; tail vertebræ, 150; hind foot, 40; ear, 33.5. Skull: total length, 45.5; Hensel, 40; zygomatic width, 25; interorbital constriction, 6; braincase above roots of zygomata, 19; palatal length, 22; length of upper tooth row, 9; lower tooth row, alveolar border, 9.

520. *Teonoma fusca* (True).

Neotoma occidentalis fusca True, Proc. U. S. Nat. Mus., 1894, p. 354.

Neotoma cinerea fusca Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 165. Zoöl. Ser.

Teonoma fusca Elliot, Pub. Field Columb. Mus., III, 1903, p. 187. Zoöl. Ser.

FUSCOUS BUSHY-TAILED WOOD RAT.

Type locality. Fort Umpqua, Douglas County, Oregon.

Geogr. Distr. Coast region of Oregon. Range unknown.

a. *Teonoma fusca apicalis* (Elliot).

Neotoma fusca apicalis Elliot, Pub. Field Columb. Mus., III, 1903, p. 160. Zoöl. Ser.

WHITE-TIPPED BUSHY-TAILED WOOD RAT.

Type locality. Gardiner, Coos County, Oregon.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size large, tail bushy, tip white. Skull long, narrow, orbital constriction considerable, rostrum long.

Color. Top of head and upper parts mixed black and yellowish; sides of head dark gray and yellowish; sides of body yellowish buff mixed with black; chin and upper part of the throat pure white, rest of throat plumbeous washed with white; inside of arms and a narrow line across breast deep ochraceous; white patch on breast and anal region; center of abdomen buff; rest of under parts plumbeous washed with white; outer side of hind legs black to ankles; hands and feet pure white; tail above blackish with white tip, beneath ochraceous at base and in a thin line in center of basal half, remainder white.

Measurements. Total length, 425; tail vertebræ, 202; hind foot, 47; ear, 32. Skull: occipito-nasal length, 51; Hensel, 43; zygomatic width, 27; interorbital constriction, 5; length of nasals, 20; palatal length, 24; length of upper tooth row, 9.5; length of mandible, 25; height at condyle, 10.5; at coronoid process, 15.

521. *Teonoma arizonæ* (Merriam).

Neotoma arizonæ Merr., Proc. Biol. Soc. Wash., VIII, 1903, p. 110.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 165.
Zoöl. Ser.

ARIZONA BUSHY-TAILED WOOD RAT.

Type locality. Keam's Cañon, Apache County, Arizona.

Geogr. Distr. Moki region, northeastern Arizona, northwestern New Mexico, southeastern Utah, and southwestern Colorado.

522. *Teonoma grangeri* (Allen).

Neotoma grangeri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 324. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 165. Zoöl. Ser.

GRANGER'S BUSHY-TAILED WOOD RAT.

Type locality. Custer, Black Hills, Custer County, South Dakota.

Geogr. Distr. South Dakota. Range unknown.

523. *Teonoma oreolestes* (Merriam).

Neotoma oreolestes (sic) Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 128. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 166. Zoöl. Ser.

COLORADO BUSHY-TAILED WOOD RAT.

Type locality. Sagauche Valley, twenty miles west of Sagauché, Sagauche County, Colorado.

Geogr. Distr. Rocky Mountains, Colorado, Wyoming, and New Mexico.

524. *Teonoma rupicola* (Allen).

Neotoma rupicola Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 323. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 166. Zoöl. Ser.

ROCK-DWELLING BUSHY-TAILED WOOD RAT.

Type locality. Corral Draw, Pine River Indian Reservation, southeastern base of the Black Hills, Custer County, South Dakota.

Geogr. Distr. South Dakota. Range unknown.

525. *Teonoma cinnamomea* (Allen).

Neotoma cinnamomea Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 331. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 166. Zoöl. Ser.

CINNAMON BUSHY-TAILED WOOD RAT.

Type locality. Kinney Ranch, Bitter Creek, Sweetwater County, Wyoming.

Geogr. Distr. Wyoming, Uncompahgre Indian Reservation, Utah; New Mexico.

Genus 74. Nelsonia.

Nelsonia Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 277, figs. 14-15.

Type Nelsonia neotomodon Merriam.

526. Nelsonia neotomodon Merriam.

Nelsonia neotomodon Merr., Proc. Biol. Soc. Wash., XI, 1897, p.

278. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 290, fig. 46. Zool. Ser.

ZACATECAS WOOD RAT.

Type locality. Mountains near Plateado, State of Zacatecas, Mexico. Altitude, 8,200 feet.

Geogr. Distr. State of Zacatecas, Mexico. Range unknown.

527. Nelsonia goldmani Merriam.

Nelsonia goldmani Merr., Proc. Biol. Soc. Wash., XVI, 1903, p.

80. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 290. Zool. Ser.

MT. TANCITARO WOOD RAT.

Type locality. Mt. Tancitaro, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, Mexico. Range unknown.

Genus 75. Xenomys.

Xenomys Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 160. Type

Xenomys nelsoni Merriam.

528. Xenomys nelsoni Merriam.

Xenomys nelsoni Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 161.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. 1, 1904, p. 292, fig. 47. Zool. Ser.

NELSON'S WOOD RAT.

Type locality. Hacienda Magdalena, between City of Colima and Manzanillo, State of Colima, Mexico.

Geogr. Distr. State of Colima, Mexico. Range unknown.

Genus 76. **Neotomodon.**

Neotomodon Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 127. Type
Neotomodon alstoni Merriam.

529. Neotomodon perotensis Merriam.

Neotomodon perotensis Merr., Proc. Biol. Soc. Wash., xii, 1898,
p. 129. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., iv, Pt. 1, 1904, p. 293. Zool. Ser.

PEROTE WOOD RAT.

Type locality. Cofre de Perote, State of Vera Cruz, Mexico. Altitude, 9,500 feet.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

530. Neotomodon orizabæ Merriam.

Neotomodon orizabæ Merr., Proc. Biol. Soc. Wash., xii, 1898, p.
129. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., iv, Pt. 1, 1904, p. 294. Zool. Ser.

MOUNTAIN WOOD RAT.

Type locality. Mt. Orizaba, State of Puebla, Mexico. Altitude, 9,500 feet.

Geogr. Distr. State of Puebla. Range unknown.

531. Neotomodon alstoni Merriam.

Neotomodon alstoni Merr., Proc. Biol. Soc. Wash., xii, 1898, p.
128. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., iv, Pt. 1, 1904, p. 294, fig. 48. Zool. Ser.

ALSTON'S WOOD RAT.

Type locality. Nahuatzin, State of Michoacan, Mexico. Altitude, 8,500 feet.

Geogr. Distr. States of Michoacan, Morelos, and Mexico, Mexico.

Genus 77. **Teanopus.**

Teanopus Merr., Proc. Biol. Soc. Wash., xvi, 1903, p. 81. Type
Teanopus phenax Merriam.

532. Teanopus phenax Merriam.

Teanopus phenax Merr., Proc. Biol. Soc. Wash., xvi, 1903, p. 81.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv
Pt. 1, 1904, p. 295, fig. 49. Zool. Ser.

CHEATING WOOD RAT.

Type locality. Camoa, Rio Mayo, State of Sonora, Mexico.

Geogr. Distr. State of Sonora, Mexico. Range unknown.

Genus 78. **Hodomys.**

Hodomys Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 232. Type
Neotoma alleni Merriam.

533. Hodomys alleni (Merriam).

Neotoma alleni Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 168.

Hodomys alleni Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 297, figs. 50, XLIV. Zool. Ser.

ALLEN'S WOOD RAT.

Type locality. Manzanillo, State of Colima, Mexico.

Geogr. Distr. State of Colima, Mexico.

534. Hodomys vetulus Merriam.

Hodomys vetulus Merr., Proc. Acad. Nat. Scien. Phil., 1894, p.

236. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 297. Zool. Ser.

GRAY-FACED WOOD RAT.

Type locality. Tehuacan, State of Puebla, Mexico.

Geogr. Distr. State of Puebla. Range unknown.

Subfamily IV. **Microtinæ.**Genus 79. **Phenacomys. Voles.**

Phenacomys Merr., N. Am. Faun., No. 2, 1889, p. 28. Type *Phenacomys intermedius* Merriam.

535. Phenacomys intermedius Merriam.

Phenacomys intermedius Merr., N. Am. Faun., No. 2, 1889, p. 32.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 167.

Zool. Ser.

INTERMEDIATE VOLE.

Type locality. Twenty miles N. N. W. of Kamloops, British Columbia, Canada. Altitude, 5,500 feet.

Geogr. Distr. Known only from the type locality.

536. Phenacomys oreophilus Merriam.

Phenacomys orophilus (sic) Merr., N. Am. Faun., No. 5, 1891,

p. 65; Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 168, fig. 36. Zool. Ser.

Phenacomys truei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894,

p. 331.

Phenacomys oramontis Rhoads, Amer. Nat., XXIX, 1895, p. 941.

MOUNTAIN VOLE.

Type locality. Salmon River Mountains, near head of Timber Creek, Idaho. Altitude, 10,500 feet.

Geogr. Distr. Alberta, British Columbia, Canada, and western United States to southern central Oregon, central Idaho, and southern Wyoming.

537. *Phenacomys olympicus* Elliot.

Phenacomys olympicus Elliot, Pub. Field Columb. Mus., 1, 1899, p. 225. Zoöl. Ser. *Id. Syn. N. Am. Mamm., F. C. M. Pub.,* 11, 1901, p. 168. Zoöl. Ser.

Microtus pumilus Elliot, Pub. Field Columb. Mus., 1899, p. 226, juv. Zoöl. Ser.

OLYMPIC MOUNTAIN VOLE.

Type locality. Happy Lake, Olympic Mountains, Clallam County, Washington. Altitude, 6,500 feet.

Geogr. Distr. Known only from the type locality and Boulder Lake, Olympic Mountains, Washington.

538. *Phenacomys preblei* Merriam.

Phenacomys preblei Merr., Proc. Biol. Soc. Wash., x1, 1897, p. 45. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 168. Zoöl. Ser.

PREBLE'S VOLE.

Type locality. Twin Peak near Long's Peak, Boulder County, Colorado. Altitude, 9,000 feet.

Geogr. Distr. Known only from the type locality.

539. *Phenacomys celatus* Merriam.

Phenacomys celatus Merr., N. Am. Faun., No. 2, 1889, p. 33. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 169. Zoöl. Ser.

Phenacomys latimanus Merr., N. Am. Faun., No. 2, 1889, p. 34.

Phenacomys ungava Merr., N. Am. Faun., No. 2, 1889, p. 35.

SECRETIVE VOLE.

Type locality. Fort Chimo, Ungava, Labrador.

Geogr. Distr. Northwestern Labrador to Peninsula Harbor, southeastern shore of Lake Superior.

a. *Phenacomys celatus crassus* Bangs.

Phenacomys celatus crassus Bangs, Proc. New Eng. Zoöl. Club, 1900, p. 39. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 430. Zoöl. Ser.

STUPID VOLE.

Type locality. Rigoulette, Hamilton Inlet, Labrador.

Geogr. Distr. Labrador. Range unknown.

540. *Phenacomys mackenzii* Preble.

Phenacomys mackenzii Preble, Proc. Biol. Soc. Wash., xv, 1902, p. 182.

MACKENZIE'S VOLE.

Type locality. Fort Smith, Slave River (near Athabasca, Mackenzie boundary line), Canada.

Genl. Char. Similar to *P. celatus* and *P. c. crassus*; cranial characters different; interorbital beads prominent, nearly meeting in old adults.

Color. Above mixed black and gray, tips of hairs yellowish brown, beneath grayish white; tail above brownish, beneath grayish white.

Measurements. Total length, 142; tail vertebræ, 34; hind foot, 17.

541. *Phenacomys constablii* Allen.

Phenacomys constablei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 4. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 169. Zool. Ser.

CONSTABLE'S VOLE.

Type locality. Telegraph Creek, Yukon, Canada.

Geogr. Distr. Known only from the type locality.

542. *Phenacomys longicaudus* True.

Phenacomys longicaudus True, Proc. U. S. Nat. Mus., 1890, p. 303. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 169. Zool. Ser.

LONG-TAILED VOLE.

Type locality. Marshfield, Coos County, Oregon.

Geogr. Distr. Coast district of Oregon. Range unknown.

543. *Phenacomys albipes* Merriam.

Phenacomys albipes Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 125.

WHITE-FOOTED VOLE.

Type locality. Redwoods near Arcata, Humboldt Bay, Humboldt County, California.

Genl. Char. Large; tail long, scantily haired; anterior root of zygoma sloping backward; jugal nearly parallel; nasals truncate posteriorly; bullæ large; interpterygoid fossa long; palate with median azygos process.

Color. Above grizzled bister; head, shoulders, and sides washed with brown, beneath grayish plumbeous washed with buffy; feet white; ankles dusky; tail above dusky, beneath whitish.

Measurements. Total length, 168; tail vertebræ, 62; hind foot, 19.

Genus 80. **Evotomys. Red-backed Voles.**

Evotomys Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 186. Type
Mus rutilus Pallas.

544. Evotomys rutilus (Pallas).

Mus rutilus Pall., Nov. Sp. Quad. Glir., 1778, p. 246, pl. xiv, B.
Evotomys rutilus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 170. Zoöl. Ser.

RUFIOUS RED-BACKED VOLE.

Type locality. Siberia, east of the Obi.

Geogr. Distr. Arctic regions of America, Europe, and Siberia.

545. Evotomys wrangeli Bailey.

Evotomys wrangeli Bailey, Proc. Biol. Soc. Wash., XI, 1897, p.
120. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 171. Zoöl. Ser.

WRANGEL RED-BACKED VOLE.

Type locality. Wrangel, Wrangel Island, Alaska.

Geogr. Distr. Wrangel and Revillagigedo Islands, Alaska.

546. Evotomys caurinus Bailey.

Evotomys caurinus Bailey, Proc. Biol. Soc. Wash., XII, 1898, p.
21. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p.
171. Zoöl. Ser.

NORTHWESTERN RED-BACKED VOLE.

Type locality. Lund, east shore of Malaspina Inlet, British Columbia, Canada.

Geogr. Distr. Coast region of British Columbia east of the Strait of Georgia, and south of the Frazer River, Canada.

547. Evotomys dawsoni Merriam.

Evotomys dawsoni Merr., Amer. Nat., XXII, 1888, p. 650. Elliot,
Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 172. Zoöl.
Ser.

DAWSON'S RED-BACKED VOLE.

Type locality. Finlayson River, Northwest Territory, lat. $61^{\circ} 30'$ N., long. $129^{\circ} 30'$ West. Altitude, 3,000 feet.

Geogr. Distr. Finlayson River and Fort Liard, west to Yakutak and Juneau, and north along the coast to Prince William Sound.

a. Evotomys dawsoni alascensis (Miller).

Evotomys alascensis Miller, Proc. Acad. Nat. Scien. Phil., 1898,
p. 364, fig. 2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 177. Zoöl. Ser.

Evotomys rutilus True, Proc. U. S. Nat. Mus., 1885, p. 596. (nec
Mus rutilus Pallas.)

ALASKA RED-BACKED VOLE.

Type locality. St. Michaels, Norton Sound, Alaska.

Geogr. Distr. Alaska. Fort Yukon to St. Michaels. Limits of range unknown.

548. *Evotomys orca* Merriam.

Evotomys orca Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 24.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 172.

Zoöl. Ser.

ORCA RED-BACKED VOLE.

Type locality. Orca, Prince William Sound, Alaska.

Geogr. Distr. Known only from the type locality.

549. *Evotomys gapperi* (Vigors).

Arvicola gapperi Vigors, Zoöl. Journ., v, 1830, p. 204, pl. ix.

Evotomys fuscodorsalis Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1894, p. 103.

Evotomys gapperi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 172, fig. 37. Zoöl. Ser.

GAPPER'S RED-BACKED VOLE.

Type locality. Vicinity of Lake Simcoe, Ontario, Canada.

Geogr. Distr. Pennsylvania, New Jersey, and Massachusetts northward, and in Canada west to the Rocky Mountains.

a. *Evotomys gapperi ochraceus* Miller.

Evotomys gapperi ochraceus Miller, Proc. Bost. Soc. Nat. Hist.,
xxvi, 1894, p. 193. Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., 11, 1901, p. 172. Zoöl. Ser.

OCHRACEOUS RED-BACKED VOLE.

Type locality. Mount Washington, Coos County, New Hampshire.
Altitude, 5,500 feet.

Geogr. Distr. White Mountains of New Hampshire, and probably east to Nova Scotia.

b. *Evotomys gapperi rhoadsi* Stone.

Evotomys gapperi rhoadsi Stone, Amer. Nat., xxvii, 1893, p. 55.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 173.

Zoöl. Ser.

RHOADS' RED-BACKED VOLE.

Type locality. May's Landing, Atlantic County, New Jersey.

Geogr. Distr. Known only from the type locality.

c. Evotomys gapperi loringi Bailey.

Evotomys gapperi loringi Bailey, Proc. Biol. Soc. Wash., XI, 1897, p. 125. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 173. Zool. Ser.

LORING'S RED-BACKED VOLE.

Type locality. Portland, Traill County, North Dakota.

Geogr. Distr. Timbered valleys along edge of plains in Minnesota, and eastern North and South Dakota.

d. Evotomys gapperi galii (Merriam).

Evotomys galei Merr., N. Am. Faun., No. 4, 1890, p. 23, pl. II, fig. 3.

Evotomys gapperi galei Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 173. Zool. Ser.

GALE'S RED-BACKED VOLE.

Type locality. Ward, Boulder County, Colorado. Altitude, 9,000 feet.

Geogr. Distr. Mountains of Colorado, north on eastern ranges of Rocky Mountains to northern Montana.

e. Evotomys gapperi saturatus Rhoads.

Evotomys gapperi saturatus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 284. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 174. Zool. Ser.

RICH-COLOURED RED-BACKED VOLE.

Type locality. Nelson, British Columbia, Canada, on the Kootenay River, thirty miles north of the Washington boundary line.

Geogr. Distr. Blue Mountains of Oregon, mountains of northern Idaho, and northward into British Columbia to Cariboo Lake, Canada.

550. *Evotomys breviceaudus* (Merriam).

Evotomys gapperi breviceaudus Merr., N. Am. Faun., No. 5, 1891, p. 119, pl. III, figs. 7, 8.

Evotomys breviceaudus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 174. Zool. Ser.

SHORT-TAILED RED-BACKED VOLE.

Type locality. Near Custer, Black Hills, Custer County, South Dakota. Altitude, 6,000 feet.

Geogr. Distr. Black Hills, Custer County, South Dakota.

551. *Evotomys carolinensis* Merriam.

Evotomys carolinensis Merr., Am. Jour. Scien., 3d Ser., xxxvi, 1888, p. 460. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 174. Zool. Ser.

CAROLINA RED-BACKED VOLE.

Type locality. Roan Mountain, Mitchell County, North Carolina.
Altitude, 6,000 feet.

Geogr. Distr. High portions of the Alleghany Mountains of North Carolina, Tennessee, and West Virginia.

552. *Evotomys ungava* Bailey.

Evotomys ungava Bailey, Proc. Biol. Soc. Wash., XI, 1897, p. 130.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 175.
 Zool. Ser.

UNGAVA RED-BACKED VOLE.

Type locality. Fort Chimo, Ungava, Labrador.

Geogr. Distr. Ungava, Labrador. Range unknown.

553. *Evotomys idahoensis* Merriam.

Evotomys idahoensis Merr., N. Am. Faun., No. 5, 1891, p. 67.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 175.
 Zool. Ser.

IDAHO RED-BACKED VOLE.

Type locality. Sawtooth or Alturas Lake, east base of the Sawtooth Mountains, Idaho. *Altitude,* 7,200 feet.

Geogr. Distr. Mountains of south central Idaho, between Snake and Salmon Rivers.

554. *Evotomys mazama* Merriam.

Evotomys mazama Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 71.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 175.
 Zool. Ser.

MT. MAZAMA RED-BACKED VOLE.

Type locality. Crater Lake, Mt. Mazama, Klamath County, Oregon. *Altitude,* 7,000 feet.

Geogr. Distr. Crest of the Cascade Mountains in Oregon.

555. *Evotomys obscurus* Merriam.

Evotomys obscurus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 72.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 176.
 Zool. Ser.

DUSKY RED-BACKED VOLE.

Type locality. Prospect, Upper Rogue River Valley, Jackson County, Oregon.

Geogr. Distr. West slope of the southern Cascade Range and northern Sierra Nevada in southern Oregon and northern California.

556. *Evotomys californicus* Merriam.

Evotomys californicus Merr., N. Am. Faun., No. 4, 1890, p. 26,

pl. II, fig. 2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 176. Zoöl. Ser.

CALIFORNIA RED-BACKED VOLE.

Type locality. Eureka, Humboldt County, California.

Geogr. Distr. Coast of northern California and Oregon.

557. *Evotomys occidentalis* Merriam.

Evotomys occidentalis Merr., N. Am. Faun., No. 4, 1890, p. 25,

pl. II, fig. 1. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 176. Zoöl. Ser.

WESTERN RED-BACKED VOLE.

Type locality. Aberdeen, Chehalis County, Washington.

Geogr. Distr. Coast and Puget Sound region of Washington and southern British Columbia.

558. *Evotomys nivarius* Bailey.

Evotomys nivarius Bailey, Proc. Biol. Soc. Wash., XI, 1897, p.

136. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 177. Zoöl. Ser.

SNOW-LOVING RED-BACKED VOLE.

Type locality. On the northwest slope of Mt. Ellinor, Olympic Mountains, Washington. Altitude, 4,000 feet.

Geogr. Distr. Mt. Ellinor and high altitudes in the Olympic Mountains, Washington.

559. *Evotomys proteus* Bailey.

Evotomys proteus Bailey, Proc. Biol. Soc. Wash., XI, 1897, p. 137.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 177. Zoöl. Ser.

CUNNING RED-BACKED VOLE.

Type locality. Hamilton Inlet, Labrador.

Geogr. Distr. Labrador. Range unknown.

Genus 81. *Microtus*. Meadow Voles.

Microtus Schrank, Fauna Boica, I, 1ste Abth., 1798, pp. 66, 72. Type

Mus arvalis Pallas.

Arvicola Lacép., Tab. Div. Sous-div. Ord. et Gen. Mamm., 1799, p. 10.

Mynomes Rafin., Am. Month. Mag., II, 1817, p. 45.

Psammomys Le Conte, Ann. N. Y. Lyc. Nat. Hist., 1830, p. 132. (nec Cretzschmar.)

Pitymys McMurt., Am. Ed. Cuv. Anim. King., I, App., 1831, p. 434. (Footnote.)

Ammomys Bon., Sagg. Dist. Met. degli Anim. Vert., 1831, p. 20. (Footnote.)

- Pinemys* Less., Hist. Nat. Mamm. et Ois. decouv. depuis 1788, in Ouvre de Buff., v, 1836, p. 436.
- Hemiotomys* Selys Longchamps, Essai Mon. Campagn. Envir. Liege, 1836, p. 7, pl. 1.
- Lagurus* Glog., Hand- u. Hilfsb. Naturgesch., I, 1841, p. 97.
- Neodon* Hodg., Ann. Mag. Nat. Hist., 2d Ser., III, 1849, p. 203.
- Agricola* Blas., Naturgesch. Säugeth. Deutsch., 1857, pp. 334-335, 368-374, figs. 202-206.
- Paludicola* Blas., Naturgesch. Säugeth. Deutsch., 1857, pp. 333-334, 343-368, figs. 183-201.
- Chilotus* Baird, N. Am. Mamm., 1857, p. 516.
- Pedomys* Baird, N. Am. Mamm., 1857, p. 517.
- Sylvicola* Fatio, Les Campagn. Bass. Léman, Ass. Zool. Léman, 1867, pp. 63-72, 75, pl. I, figs. 18-25, pl. VI.
- Praticola* Fatio, Les Campagn. Bass. Léman, Ass. Zool. Léman, 1867, pp. 36-63, 75, pl. I, figs. 5-17, pls. III-V. (Part.)
- Terricola* Fatio, Les Campagn. Bass. Léman, Ass. Zool. Léman, 1867, pp. 73, 75. (Part.)
- Ochetomys* Fitzin., Sitzungb., K. Akad. Wiss. Wien., LVI, 1867, pp. 103-105.
- Micrurus* Forsyth-Major, Att. dell. Soc. Tosc. Scien. Nat., Pisa, III, 1877, p. 126.
- Eremiomys* Polyakoff, Mém. Acad. Imp. Scien. St. Pétersb., xxxix, Suppl., 1881, pp. 35, 38, figs. 1-2.
- Neofiber* True, Science, IV, 1884, p. 34.
- Campicola* Schulze, Schrift. Natur. Ver. Harz. Wernig., v, 1890, pp. 24-25.
- Tetramerodon* Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, pp. 282-283.
- Aulacomys* Rhoads, Amer. Nat., xxviii, 1894, pp. 182-185, figs. 1-5.
- Orthriomys* Merr., Proc. Biol. Soc. Wash., xii, 1898, pp. 106-107.
- Herpetomys* Merr., Proc. Biol. Soc. Wash., xii, 1898, pp. 107-108.

Subgenus A. **Microtus.**

560. *Microtus pennsylvanicus* (Ord).

- Mus pennsylvanica* Ord, Guth. Geog., 2d Am. ed., II, 1815, p. 292.
- Mynomes pratensis* Rafin., Am. Month. Mag., II, 1817, p. 45.
- Lemmus noveboracensis* Rafin., Ann. Nat., 1820, p. 3.
- Arvicola palustris* Harl., Faun. Amer., 1825, pp. 136-138.
- Arvicola riparius* Ord, Jour. Acad. Nat. Scien. Phil., IV, Pt. II, 1825, p. 305-306.

Arvicola hirsutus Emmons, Rept. Quad. Mass., 1840, p. 60.

Arvicola alborufescens! Emmons, Rept. Quad. Mass., 1840, pp. 60-61.

Arvicola fulva Aud. & Bachm., Proc. Acad. Nat. Scien. Phil., 1841, p. 96.

Arvicola nasuta Aud. & Bachm., Proc. Acad. Nat. Scien. Phil., 1841, pp. 96-97.

Arvicola rufescens DeKay, Zool. N. Y., Mamm., 1, 1842, p. 85.

Arvicola oneida DeKay, Zool. N. Y., Mamm., 1, 1842, pp. 88-89.

Arvicola dekayi Aud. & Bachm., Quad. N. Am., III, 1854, pp. 287-288.

Arvicola riparia var. *longipilis* Baird, N. Am. Mamm., 1857, p. 524.

Arvicola rufidorsum Baird, N. Am. Mamm., 1857, p. 526.

Microtus pennsylvanicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 179, fig. 38. Zool. Ser.

PENNSYLVANIA MEADOW VOLE.

Type locality. Pennsylvania (meadows below Philadelphia).

Geogr. Distr. Eastern United States westward to the Dakotas and Nebraska.

a. *Microtus pennsylvanicus nigrans* Rhoads.

Microtus pennsylvanicus nigrans Rhoads, Proc. Acad. Nat. Scien. Phil., 1897, p. 307. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 180. Zool. Ser.

ALBEMARLE MEADOW VOLE.

Type locality. Currituck, Currituck County, North Carolina.

Geogr. Distr. Coast region of southern Virginia and northern North Carolina.

b. *Microtus pennsylvanicus acadicus* Bangs.

Microtus pennsylvanicus acadicus Bangs, Amer. Nat., xxxi, 1897, p. 239. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 180. Zool. Ser.

ACADIAN VOLE.

Type locality. Digby, Nova Scotia.

Geogr. Distr. Nova Scotia and Prince Edward Island.

c. *Microtus pennsylvanicus shattucki* Howe.

Microtus pennsylvanicus shattucki Howe, Proc. Portl. Soc. Nat. Hist., II, Pt. 6, 1901, p. 201, pl. v.

PENOBSCOT FIELD VOLE.

Type locality. Tumble Down Dick Island, near Long Island, Penobscot Bay, Maine.

Geogr. Distr. Known only from the type locality.

Genl. Char. "Size large; tail very long; ears prominent; bullæ very large and globular; palatine foramina markedly broad and bottle-shaped."

Color. Similar to that of *M. pennsylvanicus*, but slightly darker.

Measurements. "Total length, 176-198; tail vertebræ, 54-62; fore (hind?) foot, 12-13; ear, 12-18."

d. Microtus pennsylvanicus modestus (Baird).

Arvicola modesta Baird, N. Am. Mamm., 1857, p. 535.

Arvicola insperatus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 347.

Microtus pennsylvanicus modestus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 180. Zoöl. Ser.

SAWATCH MEADOW VOLE.

Type locality. Cochetopa ("Sawatch") Pass, Saguache County, Colorado.

Geogr. Distr. Rocky Mountains and western plains from New Mexico to British Columbia, Canada, and from the Black Hills of South Dakota to central Idaho and the plains of the Columbia.

e. Microtus pennsylvanicus fontigenus (Bangs).

Microtus fontigenus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 48.

Microtus pennsylvanicus fontigenus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 181. Zoöl. Ser.

FOREST VOLE.

Type locality. Lake Edward, Quebec, Canada.

Geogr. Distr. Quebec Province, Canada, west to Peninsula Harbor and Nepigon, north shore of Lake Superior.

f. Microtus pennsylvanicus labradorius Bailey.

Microtus pennsylvanicus labradorius Bailey, Proc. Biol. Soc. Wash., XII, 1898, p. 88. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 181. Zoöl. Ser.

LITTLE LABRADOR MEADOW VOLE.

Type locality. Fort Chimo, Ungava, Labrador.

Geogr. Distr. Known only from the type locality.

561. *Microtus drummondi* (Audubon & Bachman).

Arvicola drummondi Aud. & Bachm., Quad. N. Am., III, 1854, p. 166.

Arvicola (Mynomes) microcephalus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 286.

Microtus stonei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 5.

Microtus drummondi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 181. Zoöl. Ser.

DRUMMOND'S MEADOW VOLE.

Type locality. Rocky Mountains, near Jasper House, Alberta, Canada.

Geogr. Distr. Hudson Bay to Alaska, and from the United States northern boundary to Fort Anderson, Northwest Territory.

562. *Microtus aztecus* (Allen).

Arvicola (Mynomes) aztecus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 73.

Microtus aztecus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 182. Zoöl. Ser.

AZTEC MEADOW VOLE.

Type locality. Aztec, San Juan County, New Mexico. Altitude, 5,900 feet.

Geogr. Distr. Estes Park (Allen), Colorado, to valley of the San Juan River, New Mexico.

563. *Microtus enixus* Bangs.

Microtus enixus Bangs, Amer. Nat., xxx, 1896, p. 1051. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 182. Zoöl. Ser.

LARGE LABRADOR MEADOW VOLE.

Type locality. Hamilton Inlet, Labrador.

Geogr. Distr. Eastern coast of Labrador from Hamilton Inlet to Ungava Bay, Labrador.

564. *Microtus aphorodemus* Preble.

Microtus aphorodemus Preble, N. Am. Faun., No. 22, 1901, p. 52.

BARREN GROUND MEADOW VOLE.

Type locality. Barren Grounds near the mouth of the Thlewiaza River, Keewatin, Canada.

Geogr. Distr. Barren Grounds, Arctic America. Range unknown.

Genl. Char. Similar to *M. drummondi*, but larger and skull heavier.

Color. Above dark yellowish bister mixed with yellow tipped hairs; beneath white or light plumbeous, sometimes tinged with light brown.

Measurements. Total length, 190; tail vertebræ, 60; hind foot, 20. Skull: basal length, 28; length of nasals, 7.6; zygomatic breadth, 16.5; mastoid breadth, 12.6; alveolar length of upper molar series, 7.

565. *Microtus terrænovæ* (Bangs).

Arvicola terrænovæ Bangs, Proc. Biol. Soc. Wash., ix, 1894, p. 129.

Microtus terrænovæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
ii, 1901, p. 182. Zoöl. Ser.

NEWFOUNDLAND MEADOW VOLE.

Type locality. Codroy, Newfoundland.

Geogr. Distr. Newfoundland and Penguin Island.

566. *Microtus breweri* (Baird).

Arvicola breweri Baird, N. Am. Mamm., 1857, p. 525.

Microtus breweri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii,
1901, p. 183. Zoöl. Ser.

BEACH MEADOW VOLE.

Type locality. Muskeget Island, off Nantucket, Massachusetts.

Geogr. Distr. Known only from the type locality.

567. *Microtus nesophilus* Bailey.

Microtus insularis Bailey, Proc. Biol. Soc. Wash., xii, 1898, p. 86.
(nec Nilson.)

Microtus nesophilus Bailey, Science, N. S., viii, 1898, p. 782.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 183
Zoöl. Ser.

GULL ISLAND MEADOW VOLE.

Type locality. Great Gull Island, off eastern end of Long Island,
Suffolk County, New York.

Geogr. Distr. Known only from the type locality.

568. *Microtus montanus* (Peale).

Arvicola montanus Peale, U. S. Expl. Exped., Mamm., viii, 1848,
p. 44.

Arvicola longirostris Baird, N. Am. Mamm., 1857, p. 530.

Microtus montanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii,
1901, p. 183. Zoöl. Ser.

PEALE'S MEADOW VOLE.

Type locality. Headwaters of the Sacramento River, near Mount
Shasta, Siskiyou County, California.

Geogr. Distr. Northern Utah, Nevada, northeastern California,
and eastern Oregon.

a. *Microtus montanus arizonensis* Bailey.

Microtus montanus arizonensis Bailey, Proc. Biol. Soc. Wash.,
xii, 1898, p. 88. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
ii, 1901, p. 184. Zoöl. Ser.

ARIZONA MEADOW VOLE.

Type locality. Springerville, Apache County, Arizona.

Geogr. Distr. Plateau County of eastern Arizona at head of the Little Colorado River.

b. *Microtus montanus rivularis* (Bailey).

Microtus nevadensis rivularis Bailey, Biol. Soc. Wash., xii, 1898, p. 87.

Microtus montanus rivularis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 184. Zoöl. Ser.

UTAH MEADOW VOLE.

Type locality. St. George, Washington County, Utah.

Geogr. Distr. Known only from the type locality.

569. *Microtus nanus* (Merriam).

Arvicola nanus Merr., N. Am. Faun., No. 5, 1891, p. 62, pl. ii, figs. 5, 6.

Microtus nanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 184. Zoöl. Ser.

DWARF MEADOW VOLE.

Type locality. Pahsimeroi Mountains, Idaho. Altitude, 9,350 feet.

Geogr. Distr. Rocky Mountains and other ranges from central Idaho, southward to Central Nevada and southern Colorado.

a. *Microtus nanus canescens* Bailey.

Microtus nanus canescens Bailey, Proc. Biol. Soc. Wash., xii, 1898, p. 87. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 185. Zoöl. Ser.

GRAY MEADOW VOLE.

Type locality. Conconully, Okanogan County, Washington.

Geogr. Distr. Northern Washington and southern British Columbia, east of the Cascades.

570. *Microtus canicaudus* Miller.

Microtus canicaudus Miller, Proc. Biol. Soc. Wash., xi, 1897, p. 67. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 185. Zoöl. Ser.

GRAY-TAILED MEADOW VOLE.

Type locality. McCoy, Willamette Valley, Polk County, Oregon.

Geogr. Distr. Willamette Valley, Oregon, and southern Washington, on eastern slopes of the Cascade Mountains.

571. *Microtus dutcheri* Bailey.

Microtus dutcheri Bailey, Proc. Biol. Soc. Wash., xii, 1898, p. 85. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 185. Zoöl. Ser.

DUTCHER'S MEADOW VOLE.

Type locality. Big Cottonwood Meadows, near Mount Whitney, Tulare County, California. Altitude, 10,000 feet.

Geogr. Distr. Inyo and Tulare Counties, southeastern California. "Hudsonian zone of the southern Sierra Nevada."

572. *Microtus nevadensis* Bailey.

Microtus nevadensis Bailey, Proc. Biol. Soc. Wash., XII, 1898, p. 86. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 185. Zool. Ser.

NEVADA MEADOW VOLE.

Type locality. Ash Meadows, Nye County, Nevada.

Geogr. Distr. Type locality, and Pahrangat Valley, southeastern Nevada.

573. *Microtus californicus* (Peale).

Arvicola californica Peale, U. S. Expl. Exped., VIII, Mamm. & Ornith., 1848, p. 46.

Arvicola trowbridgi Baird, N. Am. Mamm., 1857, p. 529.

Microtus californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 186. Zool. Ser.

CALIFORNIA MEADOW VOLE.

Type locality. Vicinity of San Francisco Bay, California.

Geogr. Distr. California west of the Colorado Desert and the Sierra Nevada, and from Santa Isabel, San Diego County, California, to the Rogue River and Umpqua Valleys, Oregon.

a. *Microtus californicus hyperythrus* Elliot.

Microtus californicus hyperythrus Elliot, Pub. Field Columb. Mus., III, 1903, p. 161. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 302, figs. 51, XLV. Zool. Ser.

REDDISH MEADOW VOLE.

Type locality. San Quentin, Lower California, Mexico.

Geogr. Distr. Sea coast in the vicinity of San Quentin, up to 8,000 feet elevation in the San Pedro Martir Mountains, Lower California, Mexico.

b. *Microtus californicus vallicola* Bailey.

Microtus californicus vallicola Bailey, Proc. Biol. Soc. Wash., XII, 1898, p. 89. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 186. Zool. Ser.

VALLEY MEADOW VOLE.

Type locality. Lone Pine, Inyo County, California.

Geogr. Distr. Valleys east of the Sierra Nevada, California.

c. Microtus californicus constrictus Bailey.

Microtus californicus constrictus Bailey, N. Am. Faun., No. 17, 1900, p. 36. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 186. Zoöl. Ser.

COAST MEADOW VOLE.

Type locality. Cape Mendocino, Humboldt County, California.

Geogr. Distr. Coast region near Cape Mendocino, California.

574. *Microtus edax* (Le Conte).

Arvicola edax Le Conte, Proc. Acad. Nat. Scien. Phil., 1853, p. 405.

Microtus edax Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 187. Zoöl. Ser.

TULE MEADOW VOLE.

Type locality. California south of San Francisco.

Geogr. Distr. San Joaquin and Sacramento Valleys, California.

575. *Microtus scirpensis* Bailey.

Microtus scirpensis Bailey, N. Am. Faun., No. 17, 1900, p. 38.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 187. Zoöl. Ser.

DESERT MEADOW VOLE.

Type locality. Amargosa River, near Nevada line, Inyo County, California.

Geogr. Distr. Known only from the type locality.

576. *Microtus operarius* (Nelson).

Arvicola operarius Nelson, Proc. Biol. Soc. Wash., VIII, 1893, p. 139.

Microtus operarius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 187. Zoöl. Ser.

TUNDRA MEADOW VOLE.

Type locality. St. Michaels, Norton Sound, Alaska.

Geogr. Distr. Coast tundras of Bering Sea from Cape Vancouver to Bering Straits, including Nelson, St. Michaels, and Stewart Islands; eastward in Alaska to Anderson River.

577. *Microtus macfarlanii* Merriam.

Microtus macfarlani Merr., Proc. Wash. Acad. Scien., 11, 1900,

p. 24. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 187. Zoöl. Ser.

MACFARLANE'S MEADOW VOLE.

Type locality. Fort Anderson, Anderson River, Mackenzie, Canada.

Geogr. Distr. Tundra region of Arctic America, east to the Mackenzie River.

578. *Microtus yakutatensis* Merriam.

Microtus yakutatensis Merr., Proc. Wash. Acad. Scien., II, 1900,
p. 22. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 188. Zoöl. Ser.

YAKUTAT MEADOW VOLE.

Type locality. Yakutat Bay (north shore), Alaska.

Geogr. Distr. Mainland of Alaska from Glacier Bay to Prince William Sound.

579. *Microtus kadiacensis* Merriam.

Microtus kadiacensis Merr., Proc. Biol. Soc. Wash., XI, 1897,
p. 222. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 188. Zoöl. Ser.

KADIAK MEADOW VOLE.

Type locality. Kadiak Island, Alaska.

Geogr. Distr. Known only from the type locality.

580. *Microtus unalascensis* Merriam.

Microtus unalascensis Merr., Proc. Biol. Soc. Wash., XI, 1897,
p. 222. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 188. Zoöl. Ser.

UNALASKA ISLAND MEADOW VOLE.

Type locality. Ilulink village, Unalaska Island, Alaska.

Geogr. Distr. Unalaska Island, Alaska.

a. *Microtus unalascensis popofensis* Merriam.

Microtus unalascensis popofensis Merr., Proc. Wash. Acad. Scien.,
II, 1900, p. 22. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 188. Zoöl. Ser.

POPOF ISLAND MEADOW VOLE.

Type locality. Popof Island, Shumagin Group, Alaska.

Geogr. Distr. Known only from Popof Island.

581. *Microtus sitkensis* Merriam.

Microtus sitkensis Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 221.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 189.
Zoöl. Ser.

SITKA MEADOW VOLE.

Type locality. Sitka, Alaska.

Geogr. Distr. Baranof Island, Alaska.

582. *Microtus innuitus* Merriam.

Microtus innuitus Merr., Proc. Wash. Acad. Scien., II, 1900, p. 21.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 189.
Zoöl. Ser.

INNUIT MEADOW VOLE.

Type locality. St. Lawrence Island, Bering Sea, Alaska.

Geogr. Distr. Known only from the type locality.

583. *Microtus abbreviatus* Miller.

Microtus abbreviatus Miller, Proc. Biol. Soc. Wash., XIII, 1899,
p. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 189. Zoöl. Ser.

HALL ISLAND MEADOW VOLE.

Type locality. Hall Island, Bering Sea, Alaska.

Geogr. Distr. Known only from Hall Island.

a. Microtus abbreviatus fisheri Merriam.

Microtus abbreviatus fisheri Merr., Proc. Wash. Acad. Scien., II,
1900, p. 23. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 190. Zoöl. Ser.

ST. MATTHEW ISLAND MEADOW VOLE.

Type locality. St. Matthew Island, Bering Sea, Alaska.

Geogr. Distr. Known only from St. Matthew Island.

584. *Microtus townsendi* (Bachman).

Arvicola townsendi Bachm., Journ. Acad. Nat. Scien. Phil., 1839,
p. 60, pl. 1.

Arvicola occidentalis Peale, U. S. Expl. Exped., Mamm. & Ornith.,
VIII, 1848, p. 45.

Microtus townsendi Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 190. Zoöl. Ser.

TOWNSEND'S MEADOW VOLE.

Type locality. Lower Columbia River, near mouth of the Willamette, or near Wappatoo or Sauvie Island.

Geogr. Distr. Port Moody, British Columbia, Canada, south to the Willamette Valley and to Yaquina Bay, Oregon.

585. *Microtus tetramerus* (Rhoads).

Arvicola (Tetramerodon) tetramerus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 283.

Microtus tetramerus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 190. Zoöl. Ser.

VANCOUVER MEADOW VOLE.

Type locality. Beacon Hill Park, Victoria, British Columbia.

Geogr. Distr. Southern end of Vancouver Island, British Columbia, Canada.

586. *Microtus longicaudus* (Merriam).

Arvicola (Mynomes) longicaudus Merriam, Amer. Nat., XXII, 1888,
p. 934.

Microtus longicaudus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 191. Zoöl. Ser.

LONG-TAILED MEADOW VOLE.

Type locality. Custer, Black Hills, Custer County, South Dakota.
Altitude, 5,500 feet.

Geogr. Distr. Western South Dakota and Wyoming.

587. *Microtus mordax* (Merriam).

Arvicola (Mynomes) mordax Merr., N. Am. Faun., No. 5, 1891,
p. 61.

Microtus vellerosus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899
p. 7.

Microtus cantus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 7.

Microtus mordax Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 191. Zoöl. Ser.

CANTANKEROUS MEADOW VOLE.

Type locality. Sawtooth (or Alturas) Lake, east base of Sawtooth
Mountains, Idaho. Altitude, 7,200 feet.

Geogr. Distr. Rocky Mountains and contiguous ranges from lati-
tude 60° to northern New Mexico, and in the Cascades and Sierra
Nevada to Kaweah and Kern rivers, California.

588. *Microtus macrurus* Merriam.

Microtus macrurus Merr., Proc. Acad. Nat. Scien. Phil., 1898,
p. 353. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 191. Zoöl. Ser.

OLYMPIC MEADOW VOLE.

Type locality. Lake Cushman, Olympic Mountains, Washington.

Geogr. Distr. Olympic Mountains, Washington, and along the
coast of British Columbia north to Yakutat in Alaska.

589. *Microtus angusticeps* Bailey.

Microtus angusticeps Bailey, Proc. Biol. Soc. Wash., XII, 1898,
p. 86. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 192. Zoöl. Ser.

COAST MEADOW VOLE.

Type locality. Crescent City, Del Norte County, California.

Geogr. Distr. Coast region of northwestern California and south-
western Oregon.

590. *Microtus alticola* (Merriam).

Arvicola (Mynomes) alticolus! Merr., N. Am. Faun., No. 3, 1890,
p. 67, pl. v, figs. 1, 2, and pl. vi, figs. 1, 2, 3, 4.

Microtus alticola Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11
1901, p. 192. Zoöl. Ser.

MOUNTAIN MEADOW VOLE.

Type locality. Little Spring, San Francisco Mountain, Coconino County, Arizona. Altitude, 8,200 feet.

Geogr. Distr. San Francisco Mountain, at an altitude of 8,200 to 11,000 feet.

a. *Microtus alticola leucophæus* (Allen).

Arvicola leucophæus! Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 320.

Microtus alticola leucophæus Elliot, Syn: N. Am. Mamm., F. C. M. Pub., II, 1901, p. 192. Zoöl. Ser.

GRAHAM MOUNTAIN MEADOW VOLE.

Type locality. Graham Mountains, Graham County, Arizona.

Geogr. Distr. Known only from the type locality.

591. *Microtus mexicanus* (Saussure).

Arvicola (Hemiotomys) mexicanus Sauss., Rev. Mag. Zool., 2me Sér., XIII, 1861, p. 3.

Microtus mexicanus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 301. Zoöl. Ser.

MEXICAN MEADOW VOLE.

Type locality. Mount Orizaba, State of Puebla, Mexico.

Geogr. Distr. Eastern part of the State of Puebla, Mexico. Range unknown.

a. *Microtus mexicanus phæus* (Merriam).

Arvicola phæus! Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 171.

Microtus mexicanus phæus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 302. Zoöl. Ser.

COLIMA OR DARK MEADOW VOLE.

Type locality. North slope of the Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 10,000 feet.

Geogr. Distr. Known only from type locality.

b. *Microtus mexicanus guadalupensis* Bailey.

Microtus mexicanus guadalupensis Bailey, Proc. Biol. Soc. Wash., XV, 1902, p. 118.

GUADALUPE MOUNTAINS MEADOW VOLE.

Type locality. Guadalupe Mountains, El Paso County, Texas. Altitude, 7,800 feet.

Genl. Char. Larger and lighter colored than *M. mexicanus*. Skull long; nasals short, wide, posterior ends rounded; incisors dark orange; upper and middle molars like that of *M. mogollonensis*, with projecting inner point at base of posterior triangle.

Color. Above dull umber brown; belly buffy gray; feet and tail brownish gray.

Measurements. Total length, 152; tail vertebræ, 34; hind foot, 20. Skull: basal length, 24.5; length of nasals, 7.5; zygomatic breadth, 16; mastoid breadth, 12.4; alveolar length of upper molar series, 7.2.

592. *Microtus fulviventer* Merriam.

Microtus fulviventer Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 106. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 301. Zool. Ser.

FULVOUS-BELLIED OR OAXACA MEADOW VOLE.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico. Altitude, 10,200 feet.

Geogr. Distr. State of Oaxaca, Mexico.

593. *Microtus mogollonensis* (Mearns).

Arvicola mogollonensis Mearns, Bull. Am. Mus. Nat. Hist. N. Y. 1890, p. 283.

Microtus mogollonensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 192. Zool. Ser.

MOGOLLON MOUNTAINS MEADOW VOLE.

Type locality. Baker's Butte, Mogollon Mountains, Yavapai County, Arizona.

Geogr. Distr. Plateau of central Arizona.

594. *Microtus xanthognathus* (Leach).

Arvicola xanthognatha Leach, Zool. Misc., I, 1814, p. 60.

Microtus xanthognathus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 193. Zool. Ser.

YELLOW-CHEEKED MEADOW VOLE.

Type locality. Hudson Bay.

Geogr. Distr. Northwestern Canada and Alaska, from central Alberta north to the Arctic Coast, and west to Central Alaska.

595. *Microtus chrotorrhinus* (Miller).

Arvicola chrotorrhinus Miller, Proc. Bost. Soc. Nat. Hist., xxvi, 1894, p. 190.

Microtus chrotorrhinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 193. Zool. Ser.

ROCK MEADOW VOLE.

Type locality. Head of Tuckerman's Ravine, Mount Washington, Coos County, New Hampshire. Altitude, 5,300 feet.

Geogr. Distr. The Catskills, New York, to New Hampshire northward into New Brunswick to Trowser's Lake and also central Quebec.

a. Microtus chrotorrhinus rarus Bangs.

Microtus chrotorrhinus rarus Bangs, Proc. Biol. Soc. Wash., XII, 1898, p. 188. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 193. Zoöl. Ser.

GRAY ROCK MEADOW VOLE.

Type locality. Black Bay, north shore of the Strait of Belle Isle, Labrador.

Geogr. Distr. Known only from the type locality.

596. *Microtus borealis* (Richardson).

Arvicola borealis Rich., Zoöl. Journ., III, 1828, p. 517.

Microtus borealis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 194. Zoöl. Ser.

NORTHERN MEADOW VOLE.

Type locality. Great Bear Lake, Mackenzie, Canada.

Geogr. Distr. Arctic America. Range unknown.

Subgenus B. *Lagurus*.

597. *Microtus pauperrimus* (Cooper).

Arvicola pauperrima Cooper, Amer. Nat., II, 1868, p. 535.

Microtus pauperrimus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 195. Zoöl. Ser.

PIGMY MEADOW VOLE.

Type locality. Plains of the Columbia near the Snake River, southwestern Washington.

Geogr. Distr. Washington and Oregon, central Idaho, and the north slope of the Uinta Mountains, Utah.

598. *Microtus curtatus* (Cope).

Arvicola curtata Cope, Proc. Acad. Nat. Scien. Phil., 1868, p. 2.

Arvicola decurtata Coues, Mon. N. Am. Rod., 1877, p. 215.

Microtus curtatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 195, fig. 39. Zoöl. Ser.

SHORT-TAILED MEADOW VOLE.

Type locality. Pigeon Spring, Mount Magruder, Nevada.

Geogr. Distr. Eastern California, north of Death Valley and western Nevada.

599. *Microtus pallidus* (Merriam).

Arvicola pallidus! Merr., Amer. Nat., XXII, 1888, p. 702.

Microtus pallidus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 195. Zoöl. Ser.

PALLID MEADOW VOLE.

Type locality. Fort Buford, Howard County, North Dakota.

Geogr. Distr. North Dakota, Montana, north to Calgary, Alberta.

Subgenus C. *Pedomys*.**600. *Microtus austerus* (Le Conte).**

Arvicola austerus! Le Conte, Proc. Acad. Nat. Scien. Phil., 1853,
p. 405.

Arvicola (Pedomys) cinnamomea Baird, N. Am. Mamm., 1857,
p. 541.

?*Hypudæus ochrogaster* Wagn., Schreb. Säugth., Suppl., III, 1843,
p. 592.

Microtus austerus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 196, fig. 40. Zoöl. Ser.

PRAIRIE MEADOW VOLE.

Type locality. Racine, Racine County, Wisconsin.

Geogr. Distr. Mississippi Valley, from southern Wisconsin to southern Missouri and Fort Reno, Oklahoma; west to eastern Kansas and Nebraska.

601. *Microtus ludovicianus* Bailey.

Microtus ludovicianus Bailey, N. Am. Faun., No. 17, 1900, p. 74.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 197.
Zoöl. Ser.

LOUISIANA MEADOW VOLE.

Type locality. Iowa, Calcasieu Parish, Louisiana.

Geogr. Distr. Coast prairie of southwestern Louisiana.

602. *Microtus haydeni* (Baird).

Arvicola haydenii Baird, N. Am. Mamm., 1857, p. 543.

Microtus haydeni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 197. Zoöl. Ser.

HAYDEN'S MEADOW VOLE.

Type locality. Fort Pierre, Stanley County, South Dakota.

Geogr. Distr. Fort Pierre and the Black Hills, South Dakota, to the North Platte River, western Nebraska; eastern Colorado, Wyoming, and southern Montana.

603. *Microtus minor* (Merriam).

Arvicola austerus! *minor* Merr., Amer. Nat., xxii, 1888, p. 508.

Microtus minor Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 197. Zoöl. Ser.

LEAST UPLAND MEADOW VOLE.

Type locality. Bottineau at base of Turtle Mountains, Bottineau County, North Dakota.

Geogr. Distr. From Edmonton, Alberta, Canada, to northwestern North Dakota, and southeastwardly to Minneapolis, Minnesota.

Subgenus D. *Pitymys*.**604. *Microtus pinetorum* (Le Conte).**

Psammomys pinetorum Le Conte, Ann. N. Y. Lyc. Nat. Hist., III, 1830, p. 133, pl. II.

Microtus pinetorum Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 198, fig. 41. Zool. Ser.

PINE MEADOW VOLE.

Type locality. Probably near Riceboro, Liberty County, Georgia.
Geogr. Distr. North and South Carolina, Georgia, and Florida.

a. Microtus pinetorum scalopsoides (Audubon & Bachman).

Arvicola scalopsoides Aud. & Bachm., Proc. Acad. Nat. Scien. Phil., 1841, p. 97.

Arvicola apella Le Conte, Proc. Acad. Nat. Scien. Phil., 1853, p. 405.

Arvicola kennicotti Baird, N. Am. Mamm., 1857, p. 547.

Microtus pinetorum scalopsoides Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 198. Zool. Ser.

MOLE-LIKE MEADOW VOLE.

Type locality. Long Island, New York.

Geogr. Distr. Southern New York, grading along the coast into *M. pinetorum*; westward to Illinois.

b. Microtus pinetorum auricularis Bailey.

Microtus pinetorum auricularis Bailey, Proc. Biol. Soc. Wash., XII, 1898, p. 90. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 198. Zool. Ser.

BLUEGRASS MEADOW VOLE.

Type locality. Washington, Adams County, Mississippi.

Geogr. Distr. Alleghany Mountains to the Mississippi River, in the States of Tennessee, Kentucky, and northern Mississippi.

605. *Microtus nemoralis* (Bailey).

Microtus pinetorum nemoralis Bailey, Proc. Biol. Soc. Wash., XII, 1898, p. 89.

Microtus nemoralis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 199. Zool. Ser.

WOODLAND MEADOW VOLE.

Type locality. Stilwell, Boston Mountains, Indian Territory.

Geogr. Distr. Indian Territory and Arkansas north to Council Bluffs, Iowa.

606. *Microtus quasiater* (Coues).

Arvicola (Pitymys) pinetorum quasiater Coues, Proc. Acad. Nat. Scien. Phil., 1874, p. 191.

Microtus quasiater Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 303, fig. 52. Zoöl. Ser.

JALAPA MEADOW VOLE.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. Central portions of the State of Vera Cruz, and eastern part of State of Puebla, Mexico. Altitude, 4,000 to 5,000 feet.

Subgenus E. *Ohilotus*.

607. *Microtus oregoni* (Bachman).

Arvicola oregoni Bachm., Journ. Acad. Nat. Scien. Phil., 1839,
p. 60, pl. 1.

Microtus morosus Elliot, Pub. Field Columb. Mus., 1, 1899, p. 227.
Zoöl. Ser.

Microtus oregoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 200, fig. 42. Zoöl. Ser.

OREGON MEADOW VOLE.

Type locality. Astoria, Clatsop County, Oregon.

Geogr. Distr. Pacific coast region from northern California to Puget Sound.

608. *Microtus serpens* Merriam.

Microtus serpens Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 75.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 200.
Zoöl. Ser.

CREEPING MEADOW VOLE.

Type locality. Agassiz, British Columbia, Canada.

Geogr. Distr. Southern British Columbia and northern Washington, between the Cascade Mountains and Puget Sound.

609. *Microtus bairdi* Merriam.

Microtus bairdi Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 74.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 200.
Zoöl. Ser.

BAIRD'S MEADOW VOLE.

Type locality. Glacier Peak, Crater Lake, Klamath County, Oregon. Altitude, 7,800 feet.

Geogr. Distr. Known only from the type locality.

Subgenus F. *Arvicola*.

610. *Microtus richardsoni* (De Kay).

Arvicola richardsoni De Kay, Zoöl. N. York, Mamm., 1842, p. 91.

Microtus richardsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 200. Zoöl. Ser.

RICHARDSON'S MEADOW VOLE.

Type locality. "Near the foot of the Rocky Mountains"; vicinity of Jasper House, Alberta, Canada.

Geogr. Distr. Vicinity of Jasper House and of Henry House, Alberta, Canada.

a. Microtus richardsoni macropus (Merriam).

Arvicola macropus Merr., N. Am. Faun., No. 5, 1891, p. 59.

Microtus richardsoni macropus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 201, fig. 43 (*M. macropus*). Zoöl. Ser.

BIG-FOOTED MEADOW VOLE.

Type locality. Pahsimeroi Mountains, Idaho. Altitude, 9,700 feet.

Geogr. Distr. Rocky Mountains from the Wasatch north to Canada, the Wind River Mountains of Wyoming, the Blue Mountains of Oregon, and intermediate ranges. High altitudes.

b. Microtus richardsoni arvicoloides (Rhoads).

Aulacomys arvicoloides Rhoads, Amer. Nat., xxviii, 1894, p. 182.

Microtus principalis Rhoads, Amer. Nat., xxix, 1895, p. 940.

Microtus richardsoni arvicoloides Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 202. Zoöl. Ser.

CASCADE MOUNTAINS MEADOW VOLE.

Type locality. Lake Kichelos, Kittitas County, Washington. Altitude, 8,000 feet.

Geogr. Distr. Cascade range in Oregon and Washington. High elevations.

Subgenus G. *Orthriomys*.**611. Microtus umbrosus** Merriam.

Microtus umbrosus Merr., Proc. Biol. Soc. Wash., xii, 1898, p. 107.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,

Pt. 1, 1904, p. 305, fig. 53. Zoöl. Ser.

MOUNT ZEMPOALTEPEC MEADOW VOLE.

Type locality. Mount Zempoaltepec, State of Oaxaca, Mexico. Altitude, 8,200 feet.

Geogr. Distr. Known only from the type locality.

Subgenus H. *Herpetomys*.**612. Microtus guatemalensis** Merriam.

Microtus guatemalensis Merr., Proc. Biol. Soc. Wash., xii, 1898,

p. 108. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. 1, 1904, p. 306, fig. 54. Zoöl. Ser.

GUATEMALAN MEADOW VOLE.

Type locality. Todos Santos, Huehuetenango, Guatemala. Altitude, 10,000 feet.

Geogr. Distr. Known only from the type locality.

Subgenus I. *Neofiber*.**613. *Microtus alleni* (True).**

Neofiber alleni True, Science, IV, 1884, p. 34.

Microtus alleni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 203, fig. 44. Zoöl. Ser.

FLORIDA WATER VOLE.

Type locality. Georgiana, Merritt's Island, Brevard County, Florida.

Geogr. Distr. Eastern Florida from Indian River on the north to Eden on the south, and to Gainesville in the interior. The limits of this species are not exactly known; and it may go beyond the boundaries given.

Genus 82. **Fiber. Musk Rats.**

Fiber G. Cuv., Leçons d'Anat. Comp., I, 1800, tab. I. Type *Castor zibethicus* Linnæus.

Ondatra Lacép., Tab. Div. Sous-div. Ord. et Gen. Mamm., 1799, p. 9. (nec Link.)

Moschomys Billb., Syn. Faun. Scandinav., I, 1828, Mamm., *Conspectus* A.

614. *Fiber zibethicus* (Linnæus).

Castor zibethicus Linn., Syst. Nat., I, 1766, p. 79.

Fiber osoyoosensis Lord, Proc. Zoöl. Soc., 1863, p. 97.

Fiber zibethicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 212, fig. 49. Zoöl. Ser.

MUSK RAT. *Ondatra*, Indian name.

Type locality. Eastern Canada.

Geogr. Distr. Labrador to the Gulf States, excepting possibly the Dismal Swamp, Virginia, and from the Atlantic Coast to the Rocky Mountains north of the Gulf States and Arizona, and south of Keewatin, Canada.

a. Fiber zibethicus ripensis Bailey.

Fiber zibethicus ripensis Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 119.

PECOS RIVER MUSK RAT.

Type locality. Pecos River, at Carlsbad, Eddy County, New Mexico.

Geogr. Distr. Unknown.

Genl. Char. Size small; color paler than *F. zibethicus*. Skull narrow; nasals short, rounded at posterior end; incisors heavy, molars light.

Color. Above light brown; belly buff brown; throat gray with a dusky stripe on the chin; white spot over each nostril.

Measurements. Total length, 470; tail vertebræ, 202; hind foot, 67. Skull: basal length, 55; length of nasals, 18; zygomatic width, 35; mastoid breadth, 25; alveolar length of upper molar series, 15.

b. Fiber zibethicus pallidus Mearns.

Fiber zibethicus pallidus Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 280. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 213. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 308, fig. 55. Zoöl. Ser.

PALE MUSK RAT.

Type locality. Fort Verde, Yavapai County, Arizona.

Geogr. Distr. Lower California and State of Sonora, Mexico, north to Montana.

c. Fiber zibethicus rivalicius Bangs.

Fiber zibethicus rivalicius Bangs, Proc. Bost. Soc. Nat. Hist., 1895, p. 541. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 213. Zoöl. Ser.

RELATED MUSK RAT.

Type locality. Burbridge, Plaquemines Parish, Louisiana.

Geogr. Distr. Lower Mississippi region and swampy coasts of Louisiana and Alabama.

d. Fiber zibethicus aquilonius Bangs.

Fiber zibethicus aquilonius Bangs, Proc. N. Engl. Zoöl. Club, 1, 1899, p. 11. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 213. Zoöl. Ser.

NORTHERN MUSK RAT.

Type locality. Rigoulette, Hamilton Inlet, Labrador.

Geogr. Distr. Labrador. Range unknown.

e. Fiber zibethicus hudsonius Preble.

Fiber zibethicus hudsonius Preble, N. Am. Faun., No. 22, 1902, p. 53.

HUDSON BAY MUSK RAT.

Type locality. Fort Churchill, Keewatin, Canada.

Geogr. Distr. Keewatin, Canada. Range unknown.

Genl. Char. Size small. Skull with high interorbital crest; molars small.

Color. Above dull yellowish brown, dorsal region darker; throat yellowish white; cheeks yellowish fawn; middle of chin dusky; under parts yellowish brown.

Measurements. Total length, 539; tail vertebræ, 225; hind foot, 74. Skull: occipito-nasal, 56; zygomatic breadth, 38; interorbital breadth, 6; length of nasals, 20; widest part of nasals, 9.5; length of upper molar series, 13.5.

615. *Fiber spatulatus* Osgood.

Fiber spatulatus Osgood, N. Am. Faun., No. 19, 1900, p. 36.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 214.

Zoöl. Ser.

NORTHWEST TERRITORY MUSK RAT.

Type locality. Lake Marsh, Yukon, Canada.

Geogr. Distr. Northwest Canada. Range unknown.

616. *Fiber occipitalis* Elliot.

Fiber occipitalis Elliot, Pub. Field Columb. Mus., III, 1903, p. 162,

fig. Zoöl. Ser.

OREGON MUSK RAT.

Type locality. Florence, Oregon.

Geogr. Distr. Known only from the type locality.

Genl. Char. Largest species of the genus. Superior outline of occipital bowed inward at parietal, nearly forming a half circle; interorbital constriction greatly pronounced; frontal crest marked; postorbital process pointing downward, acute; brain case narrow posteriorly; interparietal nearly as long as broad; parietals pointed anteriorly, very narrow posteriorly; face of occipital broader in proportion to its length than that of *F. zibethicus*; coronoid process of mandible narrow, acute; condyle broad and heavy; molars smaller than those of *F. zibethicus*; incisors short, heavy.

Color. Above reddish brown with black hairs mixed; top of head, nose, and around eyes blackish; lips white; beneath rufous; inner side of thighs and anal region white; hands and feet blackish brown; tail black.

Measurements. Total length, 597; tail vertebræ, 295; hind foot, 85; ear, 21. Skull: occipito-nasal length, 67; Hensel, 60; zygomatic width, 43; interorbital constriction, 6.5; across postorbital processes, 23; length of nasals, 27; width of nasals posteriorly, 2.5; anteriorly, 8; greatest width of rostrum, 11; palatal length, 22.

617. *Fiber obscurus* Bangs.

Fiber obscurus Bangs, Proc. Biol. Soc. Wash., IX, 1894, p. 133.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 214.

Zoöl. Ser.

DUSKY MUSK RAT.

Type locality. Codroy, Newfoundland.

Geogr. Distr. Newfoundland. Range unknown.

618. *Fiber macrodon* Merriam.

Fiber macrodon Merr., Proc. Biol. Soc. Wash., xi, 1897, p. 143.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 214.

Zoöl. Ser.

LARGE-TOOTHED MUSK RAT.

Type locality. Lake Drummond, Dismal Swamp, Norfolk County, Virginia.

Geogr. Distr. Known only from the Dismal Swamp, Virginia.

Genus 83. *Synaptomys*. Lemming Voles.

Synaptomys Baird, N. Am. Mamm., 1857, p. 558. Type *Synaptomys cooperi* Baird.

Subgenus A. *Synaptomys*.619. *Synaptomys cooperi* Baird.

Synaptomys cooperi Baird, N. Am. Mamm., 1857, p. 558. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 203, fig. 45.

Zoöl. Ser.

COOPER'S LEMMING VOLE.

Type locality. Unknown. Southern New York, or northern New Jersey.

Geogr. Distr. Eastern Massachusetts to Minnesota, south to North Carolina, Tennessee, Indiana, and Iowa.

a. *Synaptomys cooperi stonii* (Rhoads).

Synaptomys stonei Rhoads, Amer. Nat., xxvii, 1893, p. 53.

Synaptomys helaletes Merr., Proc. Biol. Soc. Wash., x, 1896, p. 59.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 204.

Zoöl. Ser.

STONE'S LEMMING VOLE.

Type locality. Mays Landing, Atlantic County, New Jersey.

Geogr. Distr. Sphagnum bogs of the Carolina fauna.

b. *Synaptomys cooperi gossi* (Merriam).

Synaptomys helaletes gossii Merr., Proc. Biol. Soc. Wash., x, 1896,

p. 60. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 204. Zoöl. Ser.

Synaptomys cooperi gossi Rhoads, Proc. Acad. Nat. Scien. Phil.,

1897, p. 307.

GOSS' LEMMING VOLE.

Type locality. Neosho Falls, Woodson County, Kansas.

Geogr. Distr. Kansas. Range unknown.

620. Synaptomys fatuus Bangs.

Synaptomys fatuus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 47.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 204.

Zoöl. Ser.

SILLY LEMMING VOLE.

Type locality. Lake Edward, Quebec, Canada.

Geogr. Distr. Lake Edward to Victoria County, New Brunswick, and Godbout, Quebec, and west to Peninsula Harbor, northeastern Lake Superior, Ontario.

Subgenus B. **Mictomys.****621. Synaptomys innuitus** (True).

Mictomys innuitus True, Proc. U. S. Nat. Mus., 1894, p. 243.

Synaptomys innuitus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 205, fig. 46. Zoöl. Ser.

INNUIT LEMMING VOLE.

Type locality. Fort Chimo, Ungava, Labrador.

Geogr. Distr. Labrador. Range unknown.

a. Synaptomys innuitus medioximus Bangs.

Synaptomys innuitus medioximus Bangs, Proc. N. Engl. Zoöl.

Club, II, 1900, p. 40. Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, Append., p. 430. Zoöl. Ser.

LABRADOR LEMMING VOLE.

Type locality. Lance au Loup, Strait of Belle Isle, Labrador.

Geogr. Distr. Labrador. Range unknown.

622. Synaptomys sphagnicola Preble.

Synaptomys sphagnicola Preble, Proc. Biol. Soc. Wash., XIII, 1899,

p. 43. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 206. Zoöl. Ser.

WHITE MOUNTAINS LEMMING VOLE.

Type locality. Fabyans, Coos County, New Hampshire.

Geogr. Distr. White Mountains, New Hampshire. Range unknown.

623. Synaptomys wrangeli Merriam.

Synaptomys wrangeli Merr., Proc. Biol. Soc. Wash., x, 1896, p. 63.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 206.

Zoöl. Ser.

WRANGEL'S LEMMING VOLE.

Type locality. Wrangel, Alaska.

Geogr. Distr. Southwestern Alaska. Range unknown.

624. *Synaptomys andersoni* Allen.

Synaptomys andersoni Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 554.

ANDERSON'S LEMMING VOLE.

Type locality. Level Mountain, northern British Columbia, Canada.

Geogr. Distr. British Columbia. Range unknown.

Genl. Char. Skull similar to that of *S. wrangeli*, but bullæ more-inflated, especially anteriorly; posterior loop of last upper molar about two-thirds as large as the middle loop; reëtrant angle on outer side of last molar nearly as deep as that in similar tooth of *S. truii*.

Color. Above dark brown varied with blackish and suffused with clay color; head and cheeks like back; flanks yellowish brown; under surface ashy gray; tail with dorsal third blackish; sides and lower surface dull grayish; upper surface of hands and feet blackish brown.

Measurements. Total length, 120; tail vertebræ, 25; hind foot, 18; ear, 11.5. Skull: occipito-nasal length, 24.6; length of nasals, 23; zygomatic width, 14.5; mastoid breadth, 11.5; interorbital constriction, 3; length of braincase, 14; length of rostrum, 11; length of nasals, 6; length of incisive foramina, 4.2; length of upper tooth row, 6.6.

625. *Synaptomys chapmani* Allen.

Synaptomys chapmani Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 555.

CHAPMAN'S LEMMING VOLE.

Type locality. Glacier, Selkirk Range, British Columbia, Canada.

Geogr. Distr. British Columbia. Range unknown.

Genl. Char. Larger than *S. andersoni*, and skull narrower; rostrum longer; incisive foramina longer and narrower, and bullæ less inflated.

Color. Above grayish brown tinged with buff, strongest on the head; beneath dark gray, base of fur plumbeous; feet grayish brown; tail dark; side glands in front of hips covered with whitish fur.

Measurements. Total length, 134; tail vertebræ, 21; hind foot, 20; ear (from notch in dry skin), 11. Skull: occipito-nasal length, 26; basal length, 24.5; zygomatic breadth, 15.2; mastoid breadth, 11.5; interorbital constriction, 3; length of braincase, 13.5; length of rostrum, 12.2; length of nasals, 6.6; length of palatal foramina, 5; length of upper tooth row, 7.

626. *Synaptomys dalli* Merriam.

Synaptomys dalli Merr., Proc. Biol. Soc. Wash., x, 1896, p. 62.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 206.

Zoöl. Ser.

DALL'S LEMMING VOLE.

Type locality. Nulato, Alaska.

Geogr. Distr. Valley of the Yukon, western Alaska. Range unknown.

627. *Synaptomys bullatus* Preble.

Synaptomys bullatus Preble, Proc. Biol. Soc. Wash., xv, 1902, p. 181.

PREBLE'S LEMMING VOLE.

Type locality. Trout Rock near Fort Rae, Great Slave Lake, Mackenzie, Canada.

Geogr. Distr. Unknown.

Genl. Char. Skull similar to that of *S. dalli*, but pelage less reddish; hind foot smaller.

Color. Above black and reddish brown, black predominating; sides lighter; beneath ashy plumbeous; feet dusky brown; tail above dusky, beneath ashy.

Measurements. Total length, 130; tail vertebræ, 24; hind foot, 18. Skull: occipito-nasal length, 26; zygomatic width, 16; inter-orbital constriction, 3; length of upper molar series, 7.

628. *Synaptomys truei* Merriam.

Synaptomys truei Merr., Proc. Biol. Soc. Wash., x, 1896, p. 62.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 207.

Zoöl. Ser.

TRUE'S LEMMING VOLE.

Type locality. Skagit Valley, northwestern Washington.

Geogr. Distr. Northwestern Washington. Range unknown.

Genus 84. **Lemmus. Lemmings.**

Lemmus Link, Zool. Beyt. Natur., I, Pt. 2, 1795, p. 75. Type *Mus lemmus* Linnæus.

Myodes Pallas, Zoog. Rosso-Asiat., I, 1811, p. 172.

Lemmus Rocherb., Actes Soc. Linn. Bordeaux, XII, 1841, No. 42, p. 216.

629. *Lemmus trimucronatus* (Richardson).

Arvicola trimucronatus Rich., Journ. Parry's 2d Voy., 1825, Append., p. 309.

- Myodes albigularis* Wagn., Schreb. Säugth., Suppl., III, 1843, p. 602.
Lemmus alascensis Merr., Proc. Wash. Acad. Scien., II, 1900, p. 26.
Lemmus trimucronatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 207, fig. 47. Zoöl. Ser.

RICHARDSON'S LEMMING.

Type locality. Point Lake, N. Lat. 65°, Mackenzie, Canada.
Geogr. Distr. Arctic regions of North America.

a. *Lemmus trimucronatus helvolus* (Richardson).

- Arvicola* (*Georychus*?) *helvolus* Rich., Faun. Bor. Amer., Mamm.,
 1829, p. 128.
Lemmus trimucronatus helvolus Elliot, Syn. N. Am. Mamm.,
 F. C. M. Pub., II, 1901, p. 208. Zoöl. Ser.

YELLOWISH LEMMING.

Type locality. Alpine swamps, Arctic America, 56° north latitude.
Geogr. Distr. Arctic regions of North America.

b. *Lemmus trimucronatus yukonensis* (Merriam).

- Lemmus yukonensis* Merr., Proc. Wash. Acad. Scien., II, 1900, p. 27.
Lemmus trimucronatus yukonensis Elliot, Syn. N. Am. Mamm.,
 F. C. M. Pub., II, 1901, p. 208. Zoöl. Ser.

YUKON LEMMING.

Type locality. Charlie Creek, Yukon River, Alaska.
Geogr. Distr. Yukon River District, Alaska. Range unknown.

630. *Lemmus minusculus* Osgood.

Lemmus minusculus Osgood, N. Am. Faun., No. 24, 1904, p. 36.

SMALL LEMMING.

Type locality. Kakhtul River near junction with the Malchatna River, Alaska.

Geogr. Distr. Alaska. Range unknown.

Genl. Char. "Similar in general to *L. alascensis* (*L. trimucronatus*) but much smaller." Skull with naso-frontal region elevated; rostrum depressed.

Color. Upper parts mixed ochraceous and black, becoming light chestnut on the rump; blackish median line from nose to shoulders; lower sides and under parts ochraceous or tawny ochraceous; ears dusky; hands and feet seal brown; tail sometimes uniform pale buff above and below, again in other specimens blackish above, light buff below.

Measurements. Average of 10 males. Total length, 131; tail vertebræ, 12; hind foot, 19. Skull: greatest length, 28.5; Hensel, 25.4; zygomatic width, 19; mastoid width, 15; length of nasals, 8.9; postpalatal length, 12.2; length of upper molars, 8.

631. Lemmus nigripes (True).

Myodes nigripes True, Proc. U. S. Nat. Mus., xvii, 1894, p. 242.

Lemmus nigripes Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 209. Zoöl. Ser.

BLACK-FOOTED LEMMING.

Type locality. St. George Island, Pribilof Islands, Bering Sea.

Geogr. Distr. Known only from the type locality.

Genus 85. Dicrostonyx. Forked-claw Lemmings.

Dicrostonyx Glog., Gem. Hand- u. Hilfsb. Naturg., 1841, pp. xxxi, 97. Type *Mus hudsonius* Pallas.

Cuniculus Wagl., Nat. Syst. Amph., 1830, p. 121.

Myolemmus Pomel, Cat. Méth. Vert. Foss. Bass. Loire, 1854, p. 27.

Misothermus Hensel, Zeitsch. Deutsch. Geol. Gesellsch., VII, 1855, p. 492. (Part.)

Borioikon Poliakoff, Ann. au tome xxxix, Mém. Acad. St. Pétersb., No. 2, 1881, p. 35.

Tylonyx Schulze, Mamm. Europ. Hel. Abhandl. u. Vorträge Gesammtg. Naturw., Berlin, xiv, 1897, p. 83.

632. Dicrostonyx hudsonius (Pallas).

Mus hudsonius Pall., Nov. Spec. Quad. Glir. Ord., 1778, p. 208.

Dicrostonyx hudsonius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 209. Zoöl. Ser.

HUDSONIAN LEMMING.

Type locality. Labrador.

Geogr. Distr. Labrador. Range unknown.

a. Dicrostonyx hudsonius unalascensis (Merriam).

Dicrostonyx unalascensis Merr., Proc. Wash. Acad. Scien., II, 1900, p. 25.

Dicrostonyx hudsonius unalascensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 210. Zoöl. Ser.

UNALASKA LEMMING.

Type locality. Unalaska, Alaska.

Geogr. Distr. Range unknown.

b. Dicrostonyx hudsonius nelsoni (Merriam).

Dicrostonyx nelsoni Merr., Proc. Wash. Acad. Scien., II, 1900, p. 25.

Dicrostonyx hudsonius alascensis Stone, Proc. Acad. Nat. Scien. Phil., 1900, p. 37.

Dicrostonyx hudsonius nelsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 210, fig. 48. Zool. Ser.

NELSON'S LEMMING.

Type locality. St. Michaels, Alaska.

Geogr. Distr. Range unknown.

c. *Dicrostonyx hudsonius richardsoni* (Merriam).

Dicrostonyx richardsoni Merr., Proc. Wash. Acad. Scien., II, 1900, p. 26.

Dicrostonyx hudsonius richardsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 211. Zool. Ser.

FORT CHURCHILL LEMMING.

Type locality. Fort Churchill, west shore of Hudson Bay, Keewatin, Canada.

Geogr. Distr. Hudson Bay region. Range unknown.

Family V. **Geomyidæ. Pouched Rats.**

Genus 86. **Geomys. Pocket Gophers.**

Geomys Rafin., Am. Month. Mag., II, No. 1, 1817, p. 45. Type *Geomys pinetis* Rafin. = *Mus tuza* Ord.

Diplostoma Rafin., Am. Month. Mag., II, No. 1, 1817, p. 44.

Saccophorus Kuhl, Beitr. Zool. und vergl. Anat., 1820, p. 65.

Pseudostoma Say, Long's Exped. Rocky Mts., I, 1823, p. 406.

Ascomys Licht., Abhand. K. Akad. Wiss. Berl., 1825, p. 20, fig. 2.

633. Geomys tuza (Ord).

Mus tuza Ord, Guthr. Geogr., 2d Amer. ed., II, 1815, p. 292.

Geomys pinetis Rafin., Am. Month. Mag., II, No. 1, 1817, p. 45.

Geomys tuza Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 215, fig. 50. Zool. Ser.

PINE BARRENS POCKET GOPHER.

Type locality. Pine barrens near Augusta, Richmond County, Georgia.

Geogr. Distr. Pine barrens of Georgia, and possibly northern Florida.

a. *Geomys tuza floridanus* (Audubon & Bachman).

Pseudostoma floridana Aud. & Bachm., N. Am. Quad., III, 1854, p. 242.

Geomys tuza floridanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 215. Zool. Ser.

FLORIDA POCKET GOPHER.

Type locality. St. Augustine, St. John County, Florida.

Geogr. Distr. Peninsula of Florida.

b. Geomys tuza mobilensis Merriam.

Geomys tuza mobilensis Merr., N. Am. Faun., No. 8, 1895, p. 119, pls. and figs. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 216. Zoöl. Ser.

Geomys floridanus austrinus Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 177.

Geomys tuza austrinus Elliot, Pub. Field Columb. Mus., 111, 1901, p. 49. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 217. Zoöl. Ser.

MOBILE POCKET GOPHER.

Type locality. Mobile Bay, Baldwin County, Alabama.

Geogr. Distr. Southern Alabama, and adjacent northwest and western Florida.

634. Geomys colonus Bangs.

Geomys colonus Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 178.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 217. Zoöl. Ser.

FARMER POCKET GOPHER.

Type locality. St. Mary's, Camden County, Georgia.

Geogr. Distr. Georgia. Range unknown.

635. Geomys cumberlandius Bangs.

Geomys cumberlandius Bangs, Proc. Bost. Soc. Nat. Hist., 1898,

p. 180. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 217. Zoöl. Ser.

CUMBERLAND POCKET GOPHER.

Type locality. "Stafford Place," Cumberland Island, Camden County, Georgia.

Geogr. Distr. Cumberland Island, Camden County, Georgia.

636. Geomys bursarius (Shaw).

Mus bursarius Shaw, Trans. Linn. Soc., v, 1800, p. 227, pl. 8.

Diplostoma fusca Rafin., Am. Month. Mag., 11, No. 1, 1817, p. 45.

Geomys cinerea Rafin., Am. Month. Mag., 11, No. 1, 1817, p. 45.

Saccophorus bursarius Kuhl, Beitr. Zool., 1820, p. 65.

Mus saccatus Mitch., N. Y. Med. Repos., vi, 1821, p. 249.

Ascomys canadensis Licht., Abh. K. Akad. Wiss. Berlin, 1825, p. 20, fig. 2.

Geomys oregonensis Le Conte, Proc. Acad. Nat. Scien. Phil., vi, 1852, p. 160.

Geomys bursarius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 217. Zoöl. Ser.

SHAW'S POCKET GOPHER.

Type locality. Unknown. Mississippi Valley?

Geogr. Distr. Canadian boundary, longitude 97°, south to eastern Kansas, southeastern Missouri and southern Illinois, east nearly to Lake Michigan and west to the Dakotas and Nebraska.

637. *Geomys lutescens* (Merriam).

Geomys bursarius lutescens Merr., N. Am. Faun., No. 4, 1890, p. 51.

Geomys lutescens Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 127. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 218. Zoöl. Ser.

PALE POCKET GOPHER.

Type locality. Sandhills on Birdwood Creek, Lincoln County, western Nebraska.

Geogr. Distr. Great Plains, and southwestern South Dakota, southward to Colorado, western Nebraska, western Kansas, eastern Colorado, western Oklahoma, and western Texas.

638. *Geomys breviceps* Baird.

Geomys breviceps Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 335. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 218. Zoöl. Ser.

SHORT-HEADED POCKET GOPHER.

Type locality. Prairie Mer Rouge, Morehouse Parish, Louisiana.

Geogr. Distr. Mississippi Valley and Gulf Coast, in southern Arkansas, Louisiana, and Texas, and valley of the Arkansas River, north nearly to southern Kansas, and west to near 98th meridian.

*a. *Geomys breviceps sagittalis* Merriam.*

Geomys breviceps sagittalis Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 134, pl. 9, fig. 4. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 218. Zoöl. Ser.

CRESTED POCKET GOPHER.

Type locality. Clear Creek, Galveston Bay, Texas.

Geogr. Distr. Gulf Coast of Texas about Galveston Bay.

*b. *Geomys breviceps attwateri* Merriam.*

Geomys breviceps attwateri Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 135, pl. 9, fig. 3. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 219. Zoöl. Ser.

ATTWATER'S POCKET GOPHER.

Type locality. Rockport, Aransas County, Texas.

Geogr. Distr. Coast and islands of Texas, between Matagorda and Nueces Bay; also in interior and vicinity of San Antonio.

639. *Geomys texensis* Merriam.

Geomys texensis Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 137, pls. and figs. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 219. Zoöl. Ser.

TEXAS POCKET GOPHER.

Type locality. Mason, Mason County, Texas.

Geogr. Distr. Mason County, central Texas, and probably south to the Rio Grande.

640. *Geomys arenarius* Merriam.

Geomys arenarius Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 139, pls. and figs. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 219. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 310, fig. 56. Zoöl. Ser.

SAND-FREQUENTING POCKET GOPHER.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. Valley of the Upper Rio Grande from El Paso and Juarez, State of Chihuahua, Mexico, north to Las Cruces and west to Deming, New Mexico.

641. *Geomys personatus* True.

Geomys personatus True, Proc. U. S. Nat. Mus., XI, 1889, p. 159. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 220. Zoöl. Ser.

MASKED POCKET GOPHER.

Type locality. Padre Island, Cameron County, Texas.

Geogr. Distr. Padre Island and mainland to Carrizo on the Rio Grande.

a. *Geomys personatus fallax* Merriam.

Geomys personatus fallax Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 144, pl. 12, fig. 3. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 220. Zoöl. Ser.

DECEITFUL POCKET GOPHER.

Type locality. South side of Nueces Bay, Cameron County, Texas.

Geogr. Distr. South shore of Nueces Bay and lower Nueces River, Texas.

Genus 87. *Cratogeomys*. Powerful Pocket Gophers.

***Cratogeomys* Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 150. Type *Geomys merriami* Thomas.**

642. *Cratogeomys merriami* (Thomas).

Geomys merriami Thomas, Ann. Mag. Nat. Hist., 6th Ser., xii, 1893, p. 271. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 313. Zoöl. Ser.

MERRIAM'S POCKET GOPHER.

Type locality. "Southern Mexico." Valley of Mexico?

Geogr. Distr. Valley of Mexico and Toluca Valley, State of Mexico, and States of Puebla and Hidalgo. "South end of Valley of Mexico and adjacent mountain slopes from just below the lower edge of the lower pine belt to an altitude of 10,000 to 11,000 feet; east to Atlitxco, State of Puebla, north to Irolo, State of Hidalgo, and west to Lerma in Toluca Valley." (Merr.)

643. *Cratogeomys perotensis* Merriam.

Cratogeomys perotensis Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 154, pl. 8, fig. 6. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 313. Zoöl. Ser.

PEROTE POCKET GOPHER.

Type locality. Cofre de Perote, State of Vera Cruz, Mexico. Altitude, 9,500 feet.

Geogr. Distr. State of Vera Cruz, Mexico.

644. *Cratogeomys estor* Merriam.

Cratogeomys estor Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 155, pl. 8, figs. 4, 5. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 314. Zoöl. Ser.

LAS VIGAS POCKET GOPHER.

Type locality. Las Vigas, State of Vera Cruz, Mexico. Altitude, 8,000 feet.

Geogr. Distr. Northeastern foothills of the Cofre de Perote, and the wooded hills to the north, State of Vera Cruz, Mexico.

645. *Cratogeomys oreocetes* Merriam.

Cratogeomys oreocetes Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 156, pl. 8, figs. 1, 2. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 314. Zoöl. Ser.

MOUNTAIN POCKET GOPHER.

Type locality. Mount Popocatepetl, State of Mexico. Altitude, 11,500 feet.

Geogr. Distr. Higher slopes of Mount Popocatepetl, Mexico.

646. *Cratogeomys peregrinus* Merriam.

Cratogeomys peregrinus Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 158, pl. 8, fig. 3. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 314. Zoöl. Ser.

MOUNT IZTACCIHUATL POCKET GOPHER.

Type locality. Mount Iztaccihuatl, State of Mexico, Mexico.
Altitude, 11,500 feet.

Geogr. Distr. Higher slopes of Mount Iztaccihuatl, Mexico.

647. *Cratogeomys castanops* (Baird).

Pseudostoma castanops Baird, Rep. Stansb. Exped. to Great Salt Lake, 1852, p. 313.

Geomys clarkii Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 332.

Cratogeomys castanops Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 220, fig. 51. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 315, figs. 57, XLVI. Zoöl. Ser.

CHESTNUT-FACED POCKET GOPHER.

Type locality. Prairie road to Bent's Fort, near the present town of Las Animas, Bent County, Colorado, on the Arkansas River.

Geogr. Distr. States of Chihuahua and Coahuila, Mexico, north to Colorado.

a. *Cratogeomys castanops goldmani* Merriam.

Cratogeomys castanops goldmani Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 160. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 316. Zoöl. Ser.

GOLDMAN'S POCKET GOPHER.

Type locality. Cañitas, State of Zacatecas, Mexico.

Geogr. Distr. Known only from the type locality.

648. *Cratogeomys fulvescens* Merriam.

Cratogeomys fulvescens Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 161, pl. 12, fig. 2. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 316. Zoöl. Ser.

FULVOUS POCKET GOPHER.

Type locality. Chalchicomula, State of Puebla, Mexico.

Geogr. Distr. States of Puebla and Tlaxcala, from "Esperanza north to Perote, and west to the northeast base of Mount Malinche in Tlaxcala," Mexico.

Genus 88. *Platygeomys*. Broad-headed Pocket Gophers.

Platygeomys Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 162, pls. and figs. Type *Geomys gymnurus* Merriam.

649. *Platygeomys gymnurus* (Merriam).

Geomys gymnurus Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 166.

Platygeomys gymnurus Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 164, pls. and figs. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 318, fig. 58. Zoöl. Ser.

NAKED-TAILED POCKET GOPHER.

Type locality. Zapotlan, State of Jalisco, Mexico.

Geogr. Distr. Valley of Zapotlan and slopes of the Sierra Nevada de Colima, State of Jalisco, Mexico.

650. *Platygeomys fumosus* (Merriam).

Geomys fumosus Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 165.

Platygeomys fumosus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 318. Zoöl. Ser.

SOOTY POCKET GOPHER.

Type locality. Colima City, State of Colima, Mexico.

Geogr. Distr. State of Colima, Mexico.

651. *Platygeomys tylorhinus* Merriam.

Platygeomys tylorhinus Merr., Mon. Geomyidæ, N. Am. Faun., No.

8, 1895, p. 167, pl. 13, fig. 1. Elliot, Mamm. Middle Amer. &

W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 319. Zoöl. Ser.

TOUGH-SKINNED POCKET GOPHER.

Type locality. Tula, State of Hidalgo, Mexico.

Geogr. Distr. States of Hidalgo and Michoacan, on north slope of the Sierra Madre, Mexico.

*a. **Platygeomys tylorhinus angustirostris** Merriam.*

Platygeomys tylorhinus angustirostris Merr., Proc. Biol. Soc. Wash.,

XVI, 1903, p. 81. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 319. Zoöl. Ser.

SLENDER-NOSED POCKET GOPHER.

Type locality. Patamban, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan. Range unknown.

652. *Platygeomys planiceps* Merriam.

Platygeomys planiceps Merr., Mon. Geomyidæ, N. Am. Faun., No. 8,

1895, p. 168, pls. and figs. Elliot, Mamm. Middle Amer. &

W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 319. Zoöl. Ser.

FLAT-HEADED POCKET GOPHER.

Type locality. North slope of the Volcano Toluca, State of Mexico, Mexico. Altitude, 8,600 feet.

Geogr. Distr. Volcano Toluca to City of Toluca, State of Mexico, Mexico.

653. *Platygeomys neglectus* Merriam.

Platygeomys neglectus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 68. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 319. Zool. Ser.

NEGLECTED POCKET GOPHER.

Type locality. Mount Cerro de la Calentura, eight miles northwest of Pinal de Amoles, State of Queretaro, Mexico. Altitude, 9,000 feet.

Genus 89. *Pappogeomys*. Ancient Pocket Gophers.

Pappogeomys Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 145, pls. and figs. Type *Geomys bulleri* Thomas.

654. *Pappogeomys bulleri* (Thomas).

Geomys bulleri Thomas, Ann. Mag. Nat. Hist., 6th Ser., 1892, p. 196.

Geomys nelsoni Merr., Proc. Biol. Soc. Wash., vii, 1892, p. 164.

Pappogeomys bulleri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 320, fig. 59. Zool. Ser.

BULLER'S POCKET GOPHER.

Type locality. Near Talpa, west slope of Sierra de Mascota, State of Jalisco, Mexico. Altitude, 8,500 feet.

Geogr. Distr. State of Jalisco, Mexico.

655. *Pappogeomys albinasus* Merriam.

Pappogeomys albinasus Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 149. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 321. Zool. Ser.

WHITE-NOSED POCKET GOPHER.

Type locality. Atemajac, a suburb of Guadalajara, State of Jalisco, Mexico. Altitude, 8,500 feet.

Geogr. Distr. State of Jalisco, Mexico.

Genus 90. *Orthogeomys*. Straight-headed Pocket Gophers.

Orthogeomys Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 172, pls. and figs. Type *Geomys scalops* Thomas.

656. *Orthogeomys grandis* (Thomas).

Geomys grandis Thomas, Ann. Mag. Nat. Hist., 6th Ser., xii, 1893, p. 270.

Orthogeomys grandis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 322. Zoöl. Ser.

GIANT POCKET GOPHER.

Type locality. Dueñas, Guatemala.

Geogr. Distr. Guatemala. Range unknown.

657. *Orthogeomys nelsoni* Merriam.

Orthogeomys nelsoni Merr., Mon. Geomyidæ, N. Am. Faun., No. 8,
1895, p. 176, fig. 63. Elliot, Mamm. Middle Amer. & W. In-
dies, F. C. M. Pub., IV, Pt. 1, 1904, p. 324. Zoöl. Ser.

NELSON'S POCKET GOPHER.

Type locality. Mount Zempoaltepec, State of Oaxaca, Mexico.
Altitude, 8,000 feet.

Geogr. Distr. Mount Zempoaltepec and adjacent region, State of
Oaxaca, Mexico.

658. *Orthogeomys scalops* (Thomas).

Geomys scalops Thomas, Ann. Mag. Nat. Hist., 6th Ser., XIII,
1894, p. 437.

Orthogeomys scalops Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 324, fig. 60. Zoöl. Ser.

DIGGER POCKET GOPHER.

Type locality. Tehuantepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, and possibly in State of Chiapas,
Mexico.

659. *Orthogeomys latifrons* Merriam.

Orthogeomys latifrons Merr., Mon. Geomyidæ, N. Am. Faun., No. 8,
1895, p. 178, pls. and figs. Elliot, Mamm. Middle Amer. &
W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 324. Zoöl. Ser.

BRISTLED POCKET GOPHER.

Type locality. Guatemala. Exact locality unknown.

Geogr. Distr. Guatemala. Range unknown.

Genus 91. **Heterogeomys. Distinct Pocket Gophers.**

Heterogeomys Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895,
p. 179, pls. and figs. Type *Geomys hispidus* Le Conte.

660. *Heterogeomys hispidus* (Le Conte).

Geomys hispidus Le Conte, Proc. Acad. Nat. Scien. Phil., 1852,
p. 158.

Heterogeomys hispidus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 326. Zoöl. Ser.

HARSH-COATED POCKET GOPHER.

Type locality. Near Jalapa, State of Vera Cruz, México.

Geogr. Distr. State of Vera Cruz, Mexico. Altitude, 4,000 feet.

661. *Heterogeomys torridus* Merriam.

Heterogeomys torridus Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 183, pls. and figs. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 326, fig. 61. Zool. Ser.

TROPICAL POCKET GOPHER.

Type locality. Chichicaxtle, State of Vera Cruz, Mexico.

Geogr. Distr. Lowlands, State of Vera Cruz, through States of Oaxaca and Chiapas, Mexico, into Guatemala.

Genus 92. **Macrogeomys. Large Size Pocket Gophers.**

Macrogeomys Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 185. Type *Geomys heterodus* Peters.

662. *Macrogeomys heterodus* (Peters).

Geomys heterodus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1865, p. 177, pls. and figs.

Macrogeomys heterodus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 328. Zool. Ser.

IRAZU POCKET GOPHER.

Type locality. Costa Rica. Locality unknown.

Geogr. Distr. Irazu Range and possibly other parts of Costa Rica.

663. *Macrogeomys dolichocephalus* Merriam.

Macrogeomys dolichocephalus Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 189, pls. and figs. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 328. Zool. Ser.

NARROW-HEADED POCKET GOPHER.

Type locality. San José, Costa Rica.

Geogr. Distr. Costa Rica. Range unknown.

664. *Macrogeomys cavator* Bangs.

Macrogeomys cavator Bangs, Bull. Mus. Comp. Zool., xxxix, 1902, p. 42. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 329. Zool. Ser.

BOQUETE POCKET GOPHER.

Type locality. Boquete, Chiriqui, Panama. Altitude, 4,800 feet.

Geogr. Distr. Panama. Range unknown.

665. *Macrogeomys pansa* Bangs.

Macrogeomys pansa Bangs, Bull. Mus. Comp. Zool. xxxix, 1902, p. 44. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 329. Zool. Ser.

BROAD-FOOTED POCKET GOPHER.

Type locality. Bogaba, Chiriqui, Panama. Altitude, 600 feet.

Geogr. Distr. Panama. Range unknown.

666. *Macrogeomys costaricensis* Merriam.

Macrogeomys costaricensis Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 192, pls. and figs. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 330. Zool. Ser.

PACUARE POCKET GOPHER.

Type locality. Pacuare, Costa Rica.

Geogr. Distr. Costa Rica. Range unknown.

667. *Macrogeomys cherrii* (Allen).

Geomys cherriei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 337.

Macrogeomys cherrii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 330, fig. 62. Zool. Ser.

CHERRIE'S POCKET GOPHER.

Type locality. Santa Clara, Costa Rica.

Geogr. Distr. Costa Rica. Range unknown.

Genus 93. *Zygomys*. *Zygomata* Pocket Gophers.

Zygomys Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 195, pls. and figs. Type *Zygomys trichopus* Merriam.

668. *Zygomys trichopus* Merriam.

Zygomys trichopus Merr., Mon. Geomyidæ, N. Am. Faun., No. 8, 1895, p. 195, pls. and figs. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 332, fig. 63. Zool. Ser.

PINE ZONE POCKET GOPHER.

Type locality. Nahuatzin, State of Michoacan, Mexico.

Geogr. Distr. Sierra Madre, State of Michoacan, Mexico. Altitude, 6,800 to 9,500 feet.

Genus 94. *Thomomys*. *Pocket Gophers*.

Thomomys Max., Nov. Act. Phys. Med. Akad. Cæs. Leop.-Carol., xix, 1839, p. 377. Type *Thomomys rufescens* Maximilian.

Diplostoma Rich., Faun. Bor. Amer., Mamm., 1, 1829, p. 206. (nec Rafin.)

Oryctomys Eyd. & Gerv., Mag. Zool., VI, 1836, p. 23. (Part.)
Megascapheus Elliot, Pub. Field Columb. Mus., III, 1903, p. 190.
 Zool. Ser.

Subgenus A. *Megascapheus*.

669. *Thomomys bulbivorus* (Richardson).

Diplostoma bulbivorum Rich., Faun. Bor. Amer., I, 1829, p. 206,
 pl. 18, B.

Thomomys bulbivorus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 222. Zool. Ser.

GREAT POCKET GOPHER.

Type locality. Banks of the Columbia River, Oregon.

Geogr. Distr. Shores of the Lower Columbia River, Oregon, to
 coast of California north of San Francisco.

Subgenus B. *Thomomys*.

670. *Thomomys fulvus* (Woodhouse).

Geomys fulvus Woodh., Proc. Acad. Nat. Scien. Phil., 1852, p. 201.

Thomomys fulvus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
 1901, p. 227. Zool. Ser. *Id.* Mamm. Middle Amer. & W. In-
 dies, F. C. M. Pub., IV, Pt. 1, 1904, p. 334, fig. XLVII. Zool. Ser.

Ascomys umbrinus Wagn., Schreb. Säugth., Suppl., IV, 1843,
 p. 339.

Pseudostoma umbrinus Aud. & Bach., Quad. N. Am., III, 1854,
 p. 307.

Thomomys umbrinus Baird, N. Am. Mamm., 1857, p. 399.

REDDISH BROWN POCKET GOPHER.

Type locality. San Francisco Mountains, Coconino County, Ari-
 zona.

Geogr. Distr. State of Sonora, Mexico, north into New Mexico,
 and Arizona to central California. Lower California?

671. *Thomomys nevadensis* Merriam.

Thomomys nevadensis Merr., Proc. Biol. Soc. Wash., XI, 1897,
 p. 213. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
 p. 223. Zool. Ser.

NEVADA POCKET GOPHER.

Type locality. Austin, Lander County, Nevada.

Geogr. Distr. Nevada. Range unknown.

672. *Thomomys uinta* Merriam.

Thomomys uinta Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 112.

UINTA MOUNTAINS POCKET GOPHER.

Type locality. Uinta Mountains, Summit County, Utah. Altitude, 10,000 feet.

Geogr. Distr. Uinta Mountains. Range unknown.

Genl. Char. Nasals short, faintly notched behind, not so long as premaxillæ; interparietal large, pentagonal; no temporal ridges; auditory tubes conspicuous; bullæ large.

Color. Above grayish brown suffused with fulvous and mixed with black tipped hairs; cheeks and sides of neck grizzled bister; sides grayish brown; nose, ear patch, and throat dusky; fore legs and feet grayish dusky; hind feet whitish; tail above dark.

Measurements. Total length, 220; tail vertebræ, 68; hind foot, 30.

673. *Thomomys leucodon* Merriam.

Thomomys leucodon Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 215.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 223.

Zoöl. Ser.

WHITE-TOOTHED POCKET GOPHER.

Type locality. Grant Pass, Rogue River Valley, Josephine County, Oregon.

Geogr. Distr. Oregon. Range unknown.

a. *Thomomys leucodon navus* Merriam.

Thomomys leucodon navus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 112.

ACTIVE POCKET GOPHER.

Type locality. Red Bluff, Tehama County, California.

Geogr. Distr. Range unknown.

Genl. Char. Similar to *T. leucodon*; size smaller; incisors yellow; nasals cuneate, notched behind.

Color. Above pale fulvous; under parts buffy ochraceous.

Measurements. Total length, 200; tail vertebræ, 67; hind foot, 27.

674. *Thomomys operarius* Merriam.

Thomomys operarius Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 215.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 223.

Zoöl. Ser.

WORKING POCKET GOPHER.

Type locality. Keeler, east side of Owens Lake, Inyo County, California.

Geogr. Distr. Eastern California, apparently restricted to the vicinity of Owens Lake.

675. *Thomomys scapterus* Elliot.

Thomomys scapterus Elliot, Pub. Field Columb. Mus., III, 1903,
p. 248. Zoöl. Ser.

DIGGER POCKET GOPHER.

Type locality. Hannopee Cañon, Panamint Mountains, Inyo County, California.

Geogr. Distr. Panamint, Coso and Inyo Mountains, Inyo County, California.

Genl. Char. Similar to *T. operarius*, but much darker in color, and with much shorter nasals.

Color. Upper parts and sides wood brown, heavily lined with black on top of head and dorsal region, in some specimens nearly forming a dorsal band; lower sides and entire under parts white, the plumbeous under fur showing; hands and feet whitish, tail unicolor, white; ears, and small spot behind ear, black.

Measurements. Total length, 229; tail vertebræ, 74; hind foot, 29; ear, 6. Skull: total length, 37; Hensel, 33; zygomatic width, 23; interorbital constriction, 6; greatest width of braincase, 9; palatal length, 33; length of nasals, 10; anterior width of nasals, 5; length of mandible, 24.

676 *Thomomys bottæ* (Eydoux and Gervais).

Oryctomys bottæ Eyd. and Gerv., Mag. Zool., VI, 1836, p. 23, pl. XXI,
fig. 4. (teeth.)

Thomomys bottæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 223, fig. 52. Zoöl. Ser.

BOTTA'S POCKET GOPHER.

Type locality. Coast of California, Monterey.

Geogr. Distr. Central and southern California.

a. *Thomomys bottæ pallescens* Rhoads.

Thomomys bottæ pallescens Rhoads, Proc. Acad. Nat. Scien. Phil.,
1895, p. 36. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 224. Zoöl. Ser.

PALLID POCKET GOPHER.

Type locality. Grapelands, San Bernardino Valley, California.

Geogr. Distr. Southern California.

677. *Thomomys laticeps* Baird.

Thomomys laticeps Baird, Proc. Acad. Nat. Scien. Phil., 1855,
p. 335. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 224. Zoöl. Ser.

BROAD-HEADED POCKET GOPHER.

Type locality. Humboldt Bay, Humboldt County, California.

Geogr. Distr. Northern California.

678. *Thomomys townsendi* (Bachman).

Geomys townsendii Bachm., Journ. Acad. Nat. Scien. Phil., 1839,
p. 105.

Geomys borealis Bachm., Journ. Acad. Nat. Scien. Phil., 1839,
p. 103. (nec Rich.)

Thomomys townsendi Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 224. Zoöl. Ser.

TOWNSEND'S POCKET GOPHER.

Type locality. "Rocky Mountains"; probably southwestern Wyoming.

Geogr. Distr. Southwestern Wyoming. Range unknown.

679. *Thomomys monticola* Allen.

Thomomys monticolus! Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893,
p. 48.

Thomomys monticola Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 225. Zoöl. Ser.

MOUNTAIN POCKET GOPHER.

Type locality. Mt. Tallac, El Dorado County, California. Altitude, 7,500 feet.

Geogr. Distr. Northern California from San Francisco Bay to northwestern Nevada.

a. *Thomomys monticola pinetorum* Merriam.

Thomomys monticolus! *pinetorum* Merr., N. Am. Faun., No. 16,
1899, p. 97.

Thomomys monticola pinetorum Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., II, 1901, p. 225. Zoöl. Ser.

PINE POCKET GOPHER.

Type locality. Sisson, Siskiyou County, California.

Geogr. Distr. Northern California. Range unknown.

680. *Thomomys mazama* Merriam.

Thomomys mazama Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 214.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 225.
Zoöl. Ser.

MT. MAZAMA POCKET GOPHER.

Type locality. Crater Lake, Mount Mazama, Klamath County, Oregon. Altitude, 6,000 feet.

Geogr. Distr. Mt. Mazama. Range unknown.

681. *Thomomys quadratus* Merriam.

Thomomys quadratus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 214. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 225. Zool. Ser.

THE DALLES POCKET GOPHER.

Type locality. The Dalles, Wasco County, Oregon.

Geogr. Distr. Oregon. Plains of the Columbia.

682. *Thomomys myops* Merriam.

Thomomys myops Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 112.

NEAR-SIGHTED POCKET GOPHER.

Type locality. Conconully, east base of Cascade Range, Okanogan County, Washington.

Geogr. Distr. Washington. Range unknown.

Genl. Char. Size small. Skull similar to that of *T. quadratus*, but with comparative differences, such as a less quadrate zygomata with shorter posterior root; broader nasals, equal in length to premaxillæ and truncated posteriorly.

Color. Upper parts dull rufous brown; chin, throat, hands, and feet white; under parts buffy ochraceous, base of fur dark slate; sides of mouth and orbital ring plumbeous.

Measurements. Total length, 197; tail vertebræ, 63; hind foot, 26.

683. *Thomomys nasicus* Merriam.

Thomomys nasicus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 216.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 226.

Zool. Ser.

LARGE-NOSED POCKET GOPHER.

Type locality. Farewell Bend, Des Chutes River, Crook County, Oregon.

Geogr. Distr. Oregon. Range unknown.

684. *Thomomys niger* Merriam.

Thomomys niger Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 117.

BLACK POCKET GOPHER.

Type locality. Seaton, near mouth of Umpqua River, Douglas County, Oregon.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size medium; feet large. Skull with temporal ridges; interparietal oval; nasals emarginate, narrowed posteriorly.

Color. Slaty black with greenish reflections; feet and tail white, sometimes blotched with dusky. Probably melanistic individuals of *T. douglasi*.

Measurements. Total length, 225; tail vertebræ, 81; hind foot, 30.

685. *Thomomys douglasi* (Richardson).

Geomys douglasii Rich., Faun. Bor. Amer., 1, 1829, p. 200.

Thomomys douglasi Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 226. Zoöl. Ser.

DOUGLAS' POCKET GOPHER.

Type locality. Near mouth of the Columbia River, Oregon.

Geogr. Distr. Lower Columbia River, northward into British Columbia.

a. *Thomomys douglasi yelmensis* Merriam.

Thomomys douglasi yelmensis Merr., Proc. Biol. Soc. Wash., XIII,
1899, p. 21. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 226. Zoöl. Ser.

YELM PRAIRIE POCKET GOPHER.

Type locality. Tenino, Yelm Prairie, Thurston County, Washington.

Geogr. Distr. Washington. Range unknown.

b. *Thomomys douglasi fuscus* (Merriam).

Thomomys clusius fuscus Merr., N. Am. Faun., No. 5, 1891, p. 70.

Thomomys douglasi fuscus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 226. Zoöl. Ser.

SWARTHY POCKET GOPHER.

Type locality. Mountains at head of Big Lost River, Custer County, Idaho.

Geogr. Distr. Mountains of central Idaho.

c. *Thomomys douglasi fisheri* (Merriam).

Thomomys fuscus fisheri Merr., Proc. Biol. Soc. Wash., XIV, 1901,
p. 111.

FISHER'S POCKET GOPHER.

Type locality. Beckwith, Sierra Valley, Plumas County, California.

Geogr. Distr. California. Range unknown.

Genl. Char. Similar to *T. d. fuscus*, but paler; comparative differences in skull.

Color. Upper parts and beneath grayish brown.

Measurements. Total length, 191; tail vertebræ, 62; hind foot, 25.

d. *Thomomys douglasi oregonus* Merriam.

Thomomys douglasi oregonus Merr., Proc. Biol. Soc. Wash., XIV,
1901, p. 115.

OREGON POCKET GOPHER.

Type locality. Oregon City, Willamette Valley, Clackamas County, Oregon.

Geogr. Distr. Oregon. Range unknown.

Genl. Char. Like *T. douglasi*. Skull with broader zygomata, more bowed outwardly, the outer sides parallel; interparietal larger, subtriangular, with straight portions emerging; pterygoid notch V-shaped.

Color. Exactly like that of *T. douglasi*.

Measurements. Total length, 220; tail vertebrae, 70; hind foot, 30.

686. *Thomomys helleri* Elliot.

Thomomys helleri Elliot, Pub. Field Columb. Mus., III, 1903, p. 165. Zoöl. Ser.

HELLER'S GOPHER.

Type locality. Goldbeach, Oregon.

Geogr. Distr. Oregon. Range undetermined.

Genl. Char. Nearest to *T. douglasi*; color different; tail and hind foot longer. Skull shorter; molars small; rostrum broad.

Color. Head and upper parts reddish brown; spot behind ears, line beneath eyes, nose, lips, and margin of pouches, black; cheeks, sides, throat, and under parts buff; base of fur plumbeous; feet yellowish white; tail above dark gray, beneath white.

Measurements. Total length, 209; tail vertebrae, 67; hind foot, 28; ear, 8. Skull: occipito-nasal length, 36; Hensel, 28; zygomatic width, 19; interorbital constriction, 6; greatest width of braincase, 14; mastoid breadth, 13.5; length of nasals, 11; width of rostrum, 6; palatal length, 5; length of mandible, 19; height at condyle, 7; at coronoid process, 11; length of upper tooth row, 7.

687. *Thomomys limosus* Merriam.

Thomomys limosus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 116. MUD-LOVING POCKET GOPHER.

Type locality. White Salmon, Gorge of the Columbia, Klickitat County, Washington.

Geogr. Distr. Washington. Range unknown.

Genl. Char. Similar to *T. douglasi*, but darker. Skull with zygomata bowed outward, nasals restricted behind anterior third, expanded and emarginate posteriorly; interpterygoid space V-shaped; angular process of mandible spreading.

Measurements. Total length, 224; tail vertebrae, 68; hind foot, 29.

688. *Thomomys talpoides* (Richardson).

Cricetus talpoides Rich., Zoöl. Journ., III, 1828, p. 518.

Geomys borealis Rich., Rep. Brit. Ass. for 1836, VI, 1837, p. 156.

Thomomys talpoides Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 227. Zoöl. Ser.

RICHARDSON'S POCKET GOPHER.

Type locality. Probably Saskatchewan, Canada.

Geogr. Distr. Saskatchewan region south to Missouri region.

a. *Thomomys talpoides rufescens* (Maximilian).

Thomomys rufescens Max., Nov. Act. Phys. Med. Acad. Cæs. Leop.-Carol., XIX, Pt. I, 1839, p. 378.

Thomomys talpoides rufescens Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 227. Zool. Ser.

RUFESCENT POCKET GOPHER.

Type locality. Missouri River; exact locality unknown.

Geogr. Distr. Upper Missouri and Valley of the Saskatchewan, Canada.

689. *Thomomys bridgeri* Merriam.

Thomomys bridgeri Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 113.

BRIDGER'S POCKET GOPHER.

Type locality. Fort Bridger, Uinta County, Wyoming.

Geogr. Distr. Wyoming. Range unknown.

Genl. Char. Size large. Skull with parallel temporal ridges; rostrum and nasals long, notched posteriorly, otherwise similar to those of *T. talpoides*.

Color. Above chestnut to buffy brown mixed with black; beneath washed with buffy fulvous; chin, ear patch, and entrance to pouches dusky; feet whitish.

Measurements. Total length, 237; tail vertebræ, 71; hind foot, 34.

690. *Thomomys melanops* Merriam.

Thomomys melanops Merr., Proc. Biol. Soc. Wash., XIII, 1899, p. 21. Elliot, Syn. N. Am. Mamm., II, 1901, p. 227. Zool. Ser.

BLACK-FACED POCKET GOPHER.

Type locality. Solduck Trail, Olympic Mountains, Clallam County, Washington.

Geogr. Distr. Olympic Mountains, Washington. High elevation.

691. *Thomomys hesperus* Merriam.

Thomomys hesperus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 116.

WESTERN POCKET GOPHER.

Type locality. Tillamook, Tillamook County, Oregon.

Geogr. Distr. Oregon. Range unknown.

Genl. Char. Size small. Interparietal large, triangular; bullæ small.

Color. Above deep rufous; beneath buffy to salmon fulvous; nose, ear patch, and orbital ring dusky; tail above dark, beneath whitish; fore and hind feet whitish.

Measurements. Total length, 175; tail vertebræ, 54; hind foot, 24.

692. *Thomomys fulvus* (Woodhouse).

Geomys fulvus Woodh., Proc. Acad. Nat. Scien. Phil., 1852, p. 201.

Geomys umbrinus Rich., Faun. Bor. Amer., 1, 1829, p. 202. (Undeterminable.)

Thomomys umbrinus Baird, N. Am. Mamm., 1857, p. 399.

Thomomys fulvus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 227. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 334, fig. XLVII. Zoöl. Ser.

FULVOUS POCKET GOPHER.

Type locality. San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Central California south into Arizona, New Mexico, and State of Chihuahua, Mexico. Lower California, Mexico?

a. *Thomomys fulvus anitæ* Allen.

Thomomys fulvus anitæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 146. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 335. Zoöl. Ser.

SANTA ANITA POCKET GOPHER.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Cape region of Lower California, Mexico.

b. *Thomomys fulvus alticola* Allen.

Thomomys fulvus alticola Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 13. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 335. Zoöl. Ser.

SIERRA LAGUNA POCKET GOPHER.

Type locality. Sierra Laguna, Lower California, Mexico. Altitude, 7,000 feet.

Geogr. Distr. High altitudes in the Sierra Laguna range, Lower California, Mexico.

c. *Thomomys fulvus nigricans* Rhoads.

Thomomys fulvus nigricans Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 36. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 228. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 335. Zoöl. Ser.

BLACKISH POCKET GOPHER.

Type locality. Witch Creek, San Diego County, California.

Geogr. Distr. Southern California, south into Lower California, Mexico.

d. *Thomomys fulvus intermedius* Mearns.

Thomomys fulvus intermedius Mearns, Proc. U. S. Nat. Mus., XIX, 1897, p. 719. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,

1901, p. 228. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 336. Zoöl. Ser.

INTERMEDIATE POCKET GOPHER.

Type locality. Summit of Huachuca Mountains, southern Arizona. Altitude, 9,000 feet.

Geogr. Distr. Mountains connecting Colorado Plateau with that of Mexico.

e. Thomomys fulvus texensis Bailey.

Thomomys fulvus texensis Bailey, Proc. Biol. Soc. Wash., xv, 1902, p. 119.

TEXAS POCKET GOPHER.

Type locality. Limpia Creek, Davis Mountain, Jeff Davis County, Texas. Altitude, 5,500 feet.

Geogr. Distr. Texas. Range unknown.

Genl. Char. Like *T. fulvus*, but smaller, less dusky. Skull narrower, pterygoids shorter; lateral palatal pits shallower.

Color. Above dusky fulvous; ear patch and nose blackish; beneath pale bright fulvous; feet and lips gray; pouch linings white.

Measurements. Total length, 204; tail vertebrae, 63; hind foot, 26. Skull: basal length, 34.5; length of nasals, 13; zygomatic breadth 22; mastoid breadth, 18; alveolar length of upper molar series, 7.

693. *Thomomys desertorum* Merriam.

Thomomys desertorum Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 114.

DESERT POCKET GOPHER.

Type locality. Mud Spring, Detrital Valley, Mohave County, Arizona.

Geogr. Distr. Arizona. Range unknown.

Genl. Char. Size small; zygomata much bowed; interparietal subquadrate; nasals not as long as premaxillae, notched posteriorly; bullae large.

Color. Above buffy to orange fulvous; dark nose patch reaching to eyes or ears; beneath buffy to salmon fulvous; ear patch dusky; feet whitish; tail like back.

Measurements. None given.

694. *Thomomys angularis* Merriam.

Thomomys angularis Merr., Proc. Biol. Soc. Wash., xi, 1897, p. 214. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 228. Zoöl. Ser.

ANGULAR POCKET GOPHER.

Type locality. Los Baños, Merced County, California.

Geogr. Distr. Western California.

a. Thomomys angularis pascalis Merriam.

Thomomys angularis pascalis Merr., Proc. Biol. Soc. Wash., xiv
1901, p. III.

GRAZING POCKET GOPHER.

Type locality. Fresno, San Joaquin Valley, Fresno County, California.

Geogr. Distr. Joaquin Valley, California. Range unknown.

Genl. Char. Similar to *T. angularis*, but smaller. Skull: temporal ridges not forming a sagittal crest; bullæ large.

Color. Upper parts buffy yellowish; under parts paler, sometimes with patches of white; wrists and ankles white.

Measurements. Total length, 236; tail vertebræ, 80; hind foot, 32.

695. *Thomomys martirensis* (Allen).

Thomomys fulvus martirensis Allen, Bull. Am. Mus. Nat. Hist.
N. Y., 1898, p. 147.

Thomomys martirensis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 336. Zoöl. Ser.

SAN PEDRO MARTIR POCKET GOPHER.

Type locality. San Pedro Martir Mountains, Lower California, Mexico. Altitude, 8,200 feet.

Geogr. Distr. San Pedro Martir Mountains, Lower California, Mexico. Altitude, 7,000 to 8,200 feet.

696. *Thomomys aphrastus* Elliot.

Thomomys aphrastus Elliot, Pub. Field Columb. Mus., III, 1903,
p. 219. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. I, 1904, p. 336. Zoöl. Ser.

TROUBLESOME POCKET GOPHER.

Type locality. San Tomas, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico. Range unknown.

697. *Thomomys peregrinus* Merriam.

Thomomys peregrinus Merr., Proc. Biol. Soc. Wash., VIII, 1893,
p. 146. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. I, 1904, p. 337. Zoöl. Ser.

WANDERING POCKET GOPHER.

Type locality. Salazar, State of Mexico, Mexico.

Geogr. Distr. State of Mexico. Range unknown.

698. *Thomomys orizabæ* Merriam.

Thomomys orizabæ Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 145.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. I, 1904, p. 337. Zoöl. Ser.

ORIZABA POCKET GOPHER.

Type locality. Mt. Orizaba, State of Puebla, Mexico. Altitude, 9,500 feet.

Geogr. Distr. State of Puebla, Mexico. Range unknown.

699. *Thomomys atrovarius* Allen.

Thomomys atrovarius Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 148. Elliot, Mamm. Middle Amer. & W. Indies F. C. M. Pub., IV, Pt. I, 1904, p. 338, fig. 64 Zoöl. Ser.

TATEMALES POCKET GOPHER.

Type locality. Tatemaes, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico. Range unknown.

700. *Thomomys toltecus* Allen.

Thomomys toltecus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 52, pl. I, fig. 13. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 338. Zoöl. Ser.

JUAREZ POCKET GOPHER.

Type locality. Juarez, northern part of State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico. Range unknown.

701. *Thomomys perditus* Merriam.

Thomomys perditus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 108. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 338. Zoöl. Ser.

LOST POCKET GOPHER.

Type locality. Lampazos, State of Nuevo León, Mexico.

Geogr. Distr. Range unknown.

702. *Thomomys goldmani* Merriam.

Thomomys goldmani Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 108. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 339. Zoöl. Ser.

GOLDMAN'S POCKET GOPHER.

Type locality. Mapimi, State of Durango, Mexico.

Geogr. Distr. Range unknown.

703. *Thomomys alpinus* Merriam.

Thomomys alpinus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 216. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 229. Zoöl. Ser.

ALPINE POCKET GOPHER.

Type locality. Big Cottonwood Meadows, Mount Whitney, eight miles southeast of the Peak, Tulare County, California. Altitude, 10,000 feet.

Geogr. Distr. High Sierra, eastern California.

704. *Thomomys clusius* Coues.

Thomomys clusius Coues, Proc. Acad. Nat. Scien. Phil., 1875,
p. 138. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 229. Zoöl. Ser.

COUES' POCKET GOPHER.

Type locality. Bridger Pass, Sweetwater County, Wyoming.

Geogr. Distr. Uncompahgre Reservation, Utah, through southwestern Wyoming into southern and central Idaho.

a. *Thomomys clusius ocus* Merriam.

Thomomys clusius ocus Merr., Proc. Biol. Soc. Wash., XIV, 1901,
p. 114.

SWIFT POCKET GOPHER.

Type locality. Fort Bridger, Uinta County, Wyoming.

Geogr. Distr. Wyoming. Range unknown.

Genl. Char. Similar to *T. clusius*; interparietal and bullæ larger.

Color. Above pale buffy; cheeks pale buffy gray; sides buffy white; under parts and feet white.

Measurements. Total length, 204; tail vertebræ, 197; hind foot, 25.

705. *Thomomys idahoensis* Merriam.

Thomomys idahoensis Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 114.

IDAHO POCKET GOPHER.

Type locality. Birch Creek, Fremont County, Idaho.

Geogr. Distr. Idaho. Range unknown.

Genl. Char. Size small; similar to *T. clusius*. Skull: bullæ large; zygomata narrow; nasals long, slender.

Color. Above grayish buff washed with buffy fulvous; under parts, tail, and feet buffy white.

Measurements. Total length, 179; tail vertebræ, 47; hind foot, 23.

706. *Thomomys pygmæus* Merriam.

Thomomys pygmæus Merr., Proc. Biol. Soc. Wash., XIV, 1901,
p. 115.

PYGMY POCKET GOPHER.

Type locality. Montpelier Creek, Bear County, Idaho. Altitude, 6,700 feet.

Geogr. Distr. Idaho. Range unknown.

Genl. Char. Size small. Skull similar to *T. idahoensis*, smaller; interparietal transversely oval; nasals short, emarginate posteriorly; bullæ small.

Color. Above dark rufous brown; beneath buffy fulvous; feet whitish.

Measurements. Total length, 177; tail vertebræ, 46; hind foot, 22.

707. *Thomomys aureus* Allen.

Thomomys aureus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893,
p. 49. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 229. Zoöl. Ser.

GOLDEN POCKET GOPHER.

Type locality. Bluff City, San Juan County, Utah.
Geogr. Distr. Southeastern Utah.

a. *Thomomys aureus lachuguilla* Bailey.

Thomomys aureus lachuguilla Bailey, Proc. Biol. Soc. Wash., xv,
1902, p. 120.

BAILEY'S POCKET GOPHER.

Type locality. Foothills near El Paso, Texas.
Geogr. Distr. Texas. Range unknown.
Genl. Char. Size small; bullæ large; basi-occipital narrow; skull slender.
Color. *Summer Pelage.* Above dull ochraceous; beneath buffy or pale cinnamon.
Winter Pelage. Brighter ochraceous above; light buffy beneath.
Measurements. Total length, 215; tail vertebræ, 65; hind foot, 29.

b. *Thomomys aureus pervagus* Merriam.

Thomomys aureus pervagus Merr., Proc. Biol. Soc. Wash., xiv,
1901, p. 110.

ROAMING POCKET GOPHER.

Type locality. Espanola, Santa Fé County, New Mexico.
Geogr. Distr. Range unknown.
Genl. Char. Nasals broader than those of *T. aureus*.
Color. Above chestnut fulvous lined with black on dorsal region; nose and mouth dusky; chin white; under parts salmon.
Measurements. Total length, 244; tail vertebræ, 73; hind foot, 32.

c. *Thomomys aureus perpes* Merriam.

Thomomys aureus perpes Merr., Proc. Biol. Soc. Wash., xiv, 1901,
p. 111.

LONE PINE POCKET GOPHER.

Type locality. Lone Pine, Owens Valley, Inyo County, California.
Geogr. Distr. East slope of the Sierras in Owens Valley, Inyo County, California.
Genl. Char. Size small; skull generally like that of *T. aureus*, but smaller.
Color. *Winter Pelage.* Above buffy gray, darkest on head; sides buffy; under parts, feet, and tail whitish.
Summer Pelage. Like that of *T. aureus*.
Measurements. Total length, 215; tail vertebræ, 65; hind foot, 28.

708. *Thomomys baileyi* Merriam.

Thomomys baileyi Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 109.
SIERRA BLANCA POCKET GOPHER.

Type locality. Sierra Blanca, El Paso County, Texas.

Genl. Char. Size small; upper incisors projecting forwards. Skull resembles that of *T. toltecus* but differs in the projecting incisors, and longer nasals, wider interorbital region, and more open post-coronoid notch of mandible.

Color. Above buffy fulvous lined with black; beneath buff; mouth dusky; pouches and feet white.

Measurements. Total length, 212; tail vertebræ, 168; hind foot, 30.

709. *Thomomys nelsoni* Merriam.

Thomomys nelsoni Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 109.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 339. Zoöl. Ser.

NELSON'S POCKET GOPHER.

Type locality. Parral, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico. Range unknown.

710. *Thomomys latirostris* Merriam.

Thomomys latirostris Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 107.
BROAD-NOSED POCKET GOPHER.

Type locality. Little Colorado River, Painted Desert, Coconino County, Arizona.

Geogr. Distr. Arizona. Range unknown.

Genl. Char. Size medium; rostrum broad; nasals shorter than the premaxillæ; interparietal pentagonal.

Color. Above pale ochraceous buff; under parts, feet, and tail whitish.

Measurements. Total length, 232; tail vertebræ, 79; hind foot, 33.

711. *Thomomys perpallidus* (Merriam).

Thomomys talpoides perpallidus Merr., Science, VIII, 1886, p. 588.

Thomomys perpallidus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 229. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 340. Zoöl. Ser.

PALE POCKET GOPHER.

Type locality. Colorado Desert. San Diego County, California.

Geogr. Distr. Lower California, Mexico, Colorado Desert, southern California, and northeastward to the Painted Desert, Arizona.

712. *Thomomys *cabezona* Merriam.

Thomomys cabezonæ Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 110.

*Mr. Heller in his letters spells the name of the place from which this species came, Cabazon.

CABEZON POCKET GOPHER.

Type locality. Cabezon, San Gorgonio Pass, Riverside County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Smaller than *T. perpallidus*; tail long, ears large; interparietal quadrangular; bullæ small.

Color. Above and on sides buffy ochraceous or drab brown; nose, lips, chin, and pouches dusky; under parts white or pale salmon.

Measurements. Total length, 235; tail vertebræ, 79; hind foot, 30.

713. Thomomys cervinus Allen.

Thomomys cervinus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 203, fig. 1. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 230. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 340. Zoöl. Ser.

CERVINE POCKET GOPHER.

Type locality. Phoenix, Maricopa County, Arizona.

Geogr. Distr. Southern Arizona into State of Sonora, Mexico.

714. Thomomys sinaloæ Merriam.

Thomomys sinaloæ Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 108. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 339. Zoöl. Ser.

SINALOA POCKET GOPHER.

Type locality. Altata, State of Sinaloa, Mexico.

Geogr. Distr. Known only from the type locality.

715. Thomomys altivallis Rhoads.

Thomomys altivallis Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 34. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 230. Zoöl. Ser.

RHODS' POCKET GOPHER.

Type locality. San Bernardino Mountains, California. Altitude, 5,000 feet.

Geogr. Distr. Mountains of southeastern California.

716. Thomomys fossor Allen.

Thomomys fossor Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 51. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 230. Zoöl. Ser.

DELVING POCKET GOPHER.

Type locality. Florida, La Plata County, Colorado. Altitude, 7,200 feet.

Geogr. Distr. Upper San Juan region. Colorado.

Family VI. **Heteromyidae. Kangaroo Rats. Pocket Mice.**Subfamily I. **Dipodomysinæ.**Genus 95. **Dipodomys. Four-toed Kangaroo Rats.****Dipodomys** Gray, Ann. Mag. Nat. Hist., 1st Ser., VII, 1841, p. 521.Type *Dipodomys phillipsi* Gray.*Macrocolus* Wagn., Schreb. Säugth., Suppl., IV, 1844 (no text), pl. CCXXXIX. (Fig. of teeth.)**717. Dipodomys merriami** Mearns.*Dipodomys merriami* Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 290. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 232, fig. 53. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 345, fig. XLVIII. Zool. Ser.**MERRIAM'S KANGAROO RAT.***Type locality.* New River, between Phoenix and Prescott, Arizona.*Geogr. Distr.* Arizona south into States of Sonora and Chihuahua, Mexico.*a. Dipodomys merriami nevadensis* Merriam.*Dipodomys merriami nevadensis* Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 111. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 232. Zool. Ser.**NEVADA KANGAROO RAT.***Type locality.* Pyramid Lake, Washoe County, Nevada.*Geogr. Distr.* Northwestern Nevada. Range unknown.*b. Dipodomys merriami nitratus* Merriam.*Dipodomys merriami nitratus* Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 112. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 233. Zool. Ser.**KEELER KANGAROO RAT.***Type locality.* Keeler, Owens Lake, Inyo County, California.*Geogr. Distr.* Type locality only.*c. Dipodomys merriami nitratoides* Merriam.*Dipodomys merriami nitratoides* Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 112. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 233. Zool. Ser.**SIMILAR KANGAROO RAT.***Type locality.* Tipton, San Joaquin Valley, Tulare County, California.*Geogr. Distr.* South central California.

d. *Dipodomys merriami exilis* Merriam.

Dipodomys merriami exilis Merr., Proc. Biol. Soc. Wash., ix, 1894, p. 113. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 233. Zoöl. Ser.

SLENDER KANGAROO RAT.

Type locality. Fresno, San Joaquin Valley, Fresno County, California.

Geogr. Distr. South central California.

e. *Dipodomys merriami ambiguus* (Merriam).

Dipodomys ambiguus Merr., N. Am. Faun., No. 4, 1890, p. 42.

Dipodomys merriami ambiguus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 234. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 346. Zoöl. Ser.

DOUBTFUL KANGAROO RAT.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. Northwestern Texas, south to State of Chihuahua, Mexico.

f. *Dipodomys merriami parvus* (Rhoads).

Dipodomys parvus Rhoads, Amer. Nat., xxviii, 1894, p. 70.

Dipodomys merriami parvus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 234. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 346. Zoöl. Ser.

SMALL KANGAROO RAT.

Type locality. San Bernardino, San Bernardino County, California.

Geogr. Distr. Southern California south into Lower California, Mexico.

g. *Dipodomys merriami simiolus* (Rhoads).

Dipodomys simiolus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 410.

Dipodomys similis Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 411.

Dipodomys merriami simiolus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 234. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 347. Zoöl. Ser.

Dipodomys merriami similis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 234. Zoöl. Ser.

ALLIED KANGAROO RAT.

Type locality. Agua Caliente, Mohave Desert, California.

Geogr. Distr. Southern California into Lower California and State of Sonora, Mexico.

h. Dipodomys merriami mortivallis Elliot.

Dipodomys merriami mortivallis Elliot, Pub. Field Columb. Mus.,
III, 1903, p. 250. Zoöl. Ser.

DEATH VALLEY KANGAROO RAT.

Type locality. Furnace Creek, Death Valley, Inyo County, California.

Geogr. Distr. Death Valley and near-by region on the west.

Genl. Char. Similar to *D. m. simiolus*, but the dorsal and ventral stripe and pencil of the tail vary from a purplish tint to pale russet, quite different from the blackish tail of *D. m. simiolus*. The general color of the upper part of the body is also darker. The skulls of the two races are much alike save that of the present one has much longer and broader nasals, widening anteriorly; extreme width of parietal is greater and the mastoids are broader.

Color. Above russet, darkest on the rump, plumbeous under fur showing; sides dark russet; spots behind ear, superciliary stripe, face in front of eye, nose, entire under parts, stripes across thighs and feet, pure white; inner side of thighs deep russet like rump; black bar across rump; tail bushy on apical third, with dorsal and ventral stripes and also bushy portion or pencil pale russet.

Measurements. Total length, 240; tail vertebræ, 142; hind foot, 37.5; ear, 14. Skull: total length, 36; Hensel, 22; greatest width of mastoids, 22; interorbital constriction, 13; width of interparietal, 17; length of nasals, 13; width of nasals posteriorly, 2; anteriorly, 3; length of upper tooth row, 3.5; height of coronoid process from angle, 6.

i. Dipodomys merriami arenivagus Elliot.

Dipodomys merriami arenivagus Elliot, Pub. Field Columb. Mus.,
III, 1903, p. 249. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 347. Zoöl. Ser.

SAN FELIPE KANGAROO RAT.

Type locality. San Felipe, Lower California, Mexico.

Geogr. Distr. Northeastern coast of Lower California, Mexico.

j. Dipodomys merriami atronasus Merriam.

Dipodomys merriami atronasus Merr., Proc. Biol. Soc. Wash., IX,
1894, p. 113. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 348. Zoöl. Ser.

BLACK-NOSED KANGAROO RAT.

Type locality. Hacienda La Parada, twenty-five miles northwest of the City of San Luis Potosí, State of San Luis Potosí, Mexico.

Geogr. Distr. Known only from the type locality.

k. Dipodomys merriami melanurus Merriam.

Dipodomys merriami melanurus Merr., Proc. Calif. Acad. Scienc., 2d Ser., 1893, p. 345. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 348. Zool. Ser.

BLACK-TAILED KANGAROO RAT.

Type locality. San José del Cabo, Lower California, Mexico.

Geogr. Distr. Cape region of Lower California, Mexico.

718. *Dipodomys mitchelli* Mearns.

Dipodomys mitchelli Mearns, Proc. U. S. Nat. Mus., XIX, 1897, p. 719. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 344. Zool. Ser.

TIBURON ISLAND KANGAROO RAT.

Type locality. Tiburon Island, Gulf of California, Mexico.

Geogr. Distr. Known only from the type locality.

719. *Dipodomys phillipsi* Gray.

Dipodomys phillipsi Gray, Ann. Mag. Nat. Hist., VII, 1st Ser., 1841, p. 522. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 343, fig. 65. Zool. Ser.

PHILLIPS' KANGAROO RAT.

Type locality. Real del Monte, north end of the Valley of Mexico.

Geogr. Distr. Valley of Mexico, State of Mexico, and States of Puebla, Tlaxcala, and Vera Cruz, Mexico.

720. *Dipodomys ornatus* Merriam.

Dipodomys ornatus Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 110. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 344. Zool. Ser.

ORNAMENTED KANGAROO RAT.

Type locality. Berriozabal, State of Zacatecas, Mexico.

Geogr. Distr. State of Zacatecas, Mexico.

721. *Dipodomys perotensis* Merriam.

Dipodomys perotensis Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 111. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 344. Zool. Ser.

PEROTE KANGAROO RAT.

Type locality. Perote, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz.

722. *Dipodomys californicus* Merriam.

Dipodomys californicus Merr., N. Am. Faun., No. 4, 1890, p. 49. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 236. Zool. Ser.

CALIFORNIA KANGAROO RAT.

Type locality. Ukiah, Mendocino County, California.

Geogr. Distr. Northwestern California.

a. Dipodomys californicus pallidulus Bangs.

Dipodomys californicus pallidulus Bangs, Proc. New Engl. Zool. Club, I, 1899, p. 65. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 431. Zool. Ser.

PALER KANGAROO RAT.

Type locality. Sites, Colusa County, California.

Geogr. Distr. Known only from the type locality.

723. Dipodomys elator Merriam.

Dipodomys elator Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 109. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 235. Zool. Ser.

PROUD KANGAROO RAT.

Type locality. Henrietta, Clay County, Texas.

Geogr. Distr. Northern Texas. Range unknown.

724. Dipodomys deserti Stephens.

Dipodomys deserti Stephens, Amer. Nat., XXI, 1887, p. 42. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 235. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 345. Zool. Ser.

DESERT KANGAROO RAT.

Type locality. Mohave River, San Bernardino County, California.

Geogr. Distr. Mohave and Colorado deserts, southeastern California, south to the State of Sonora and Lower California, Mexico.

a. Dipodomys deserti helleri Elliot.

Dipodomys deserti helleri Elliot, Pub. Field Columb. Mus., III, 1903, p. 249. Zool. Ser.

HELLER'S KANGAROO RAT.

Type locality. Keeler, Owens Lake, Inyo County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size similar to that of *D. deserti*; color pale ochraceous instead of pale yellowish brown; upper part of tail like the back, with no black markings; no black on face.

Color. Upper parts pale ochraceous or dark pinkish buff, a similar tint to that of *D. m. nitratus*; line over eyes, sides of nose, fore part of face, entire under parts, limbs and feet, pure white; tail with pale ochraceous line above, becoming ochraceous near the tip; sides and under part of lip pure white; ear same color as the back.

Measurements. Total length, 333; tail vertebræ, 195; hind foot, 53.5; ear, 16. Skull: total length, 43; Hensel, 37; zygomatic width, 21; width of mastoids, 29; greatest width of parietal, 20; length of nasals, 14; palatal length, 14; length of upper tooth row, 5; length of mandible, 21; length of lower tooth row, 5.

725. *Dipodomys spectabilis* Merriam.

Dipodomys spectabilis Merr., N. Am. Faun., No. 4, 1890, p. 46.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 235.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. 1, 1904, p. 345. Zoöl. Ser.

NOTABLE KANGAROO RAT.

Type locality. Dos Cabezos, Cochise County, Arizona.

Geogr. Distr. Portions of Arizona and Texas, eastward to Sierra Blanca, Texas, and south into the States of Chihuahua and Sonora, Mexico.

Genus 96. *Perodipus*. Five-toed Kangaroo Rats.

***Perodipus* Fitzin., Sitz. Math.-Natur. Classe K. Akad. Wiss. Wien,**

LVI, 1867, p. 126. *Type* *Dipodomys agilis* Gambel.

Dipodops Merr., N. Am. Faun., No. 3, 1890, p. 72.

726. *Perodipus agilis* (Gambel).

Dipodomys agilis Gambel, Proc. Acad. Nat. Scien. Phil., 1848,

p. 77.

Dipodomys hermanni Le Conte, Proc. Acad. Nat. Scien. Phil.,

1853, p. 224.

? *Dipodomys wagneri* Le Conte, Proc. Acad. Nat. Scien. Phil.,

1853, p. 224.

Perodipus agilis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,

1901, p. 236, fig. 54. Zoöl. Ser. *Id.* Mamm. Middle Amer.

& W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 351. Zoöl.

Ser.

NIMBLE KANGAROO RAT.

Type locality. Los Angeles, Los Angeles County, California.

Geogr. Distr. Middle and southern California, south to Lower California, Mexico.

a. *Perodipus agilis tularensis* Merriam.

Perodipus agilis tularensis Merr., Proc. Biol. Soc. Wash., XVII,

1904, p. 143.

TULARE KANGAROO RAT.

Type locality. Alila, Tulare County, California.

Geogr. Distr. Known only from the type locality and Tejon Cañon, California.

Genl. Char. Like *P. agilis*. Maxillary arches more developed and with a prominent recurved angle on outer side.

Color. Externally like *P. agilis*.

Measurements. Type. Total length, 308; tail vertebræ, 182; hind foot, 41.

727. *Perodipus venustus* Merriam.

Perodipus venustus Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 142.
GRACEFUL KANGAROO RAT.

Type locality. Santa Cruz, Santa Cruz County, California.

Geogr. Distr. Santa Cruz and Santa Lucia Mountains, California.

Genl. Char. Similar to *P. agilis*, but darker in color; skull slightly longer; maxillary arch of zygoma broader on outer side, with an outer angle; nasals longer; premaxillæ broader; incisors heavier.

Color. Nose black; base of whiskers black; top of head, back, and thigh patches dusky, finely grizzled with ochraceous; ears large and nearly black, with pale spots at base and top of fold; ankles, side of heels, soles, and tail stripes nearly black; black patch in front of basal white ring of tail.

Measurements. Type. Total length, 339; tail vertebræ, 211; hind foot, 46.

728. *Perodipus goldmani* Merriam.

Perodipus goldmani Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 143.
GOLDMAN'S KANGAROO RAT.

Type locality. Salinas, mouth of Salinas Valley, Monterey County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size large; tail short; ears small.

Color. Upper parts finely mixed dusky and buffy ochraceous; flanks grizzled ochraceous; conspicuous dusky marks at base of whiskers and on ankles.

Measurements. Type. Total length, 312; tail vertebræ, 185; hind foot, 46.

729. *Perodipus streatori* Merriam.

Perodipus streatori Merr., Proc. Biol. Soc. Wash., IX, 1894, p. 113.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 237.
Zool. Ser.

STREATOR'S KANGAROO RAT.

Type locality. Carbondale, Mariposa County, California.

Geogr. Distr. West foot of Sierra Nevada, California.

a. Perodipus streator simulans Merriam.

Perodipus streator simulans Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 144.

COUNTERFEIT KANGAROO RAT.

Type locality. Dulzura, San Diego County, California.

Geogr. Distr. San Diego County to Morro in San Luis Obispo County, California.

Genl. Char. End of tail not white; maxillaries separated.

Color. Like *P. streator*.

Measurements. Total length, 280; tail vertebræ, 165; hind foot, 40.

730. *Perodipus panamintinus* Merriam.

Perodipus panamintinus Merr., Proc. Biol. Soc. Wash., ix, 1894, p. 114. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 239. Zoöl. Ser.

PANAMINT KANGAROO RAT.

Type locality. Head of Willow Creek, Panamint Mountains, Inyo County, California.

Geogr. Distr. Panamint Mountains, eastern California.

731. *Perodipus cabezonæ* Merriam.

Perodipus cabezonæ Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 144.

CABEZON KANGAROO RAT.

Type locality. Cabezon, Colorado Desert, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size small; ears large. Skull rather long and narrow; sides of fronto-parietal shield approximating anteriorly; maxillary arches compressed.

Color. "Buffy ochraceous. Externally most like *P. panamintinus*."

Measurements. Type. Total length, 275; tail vertebræ, 162; hind foot, 42.3.

732. *Perodipus montanus* (Baird).

Dipodomys montanus Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 334. Mearns, Proc. Biol. Soc. Wash., xvii, 1904, p. 140. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Appendix, p. 431. Zoöl. Ser.

Perodipus montanus Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 140.

BAIRD'S KANGAROO RAT.

Type locality. Near Fort Garland (Old Fort Massachusetts), San Luis Valley, south central Colorado.

Geogr. Distr. Known only from the type locality. Range undetermined.

Genl. Char. Size medium; tail rather short; ears small. Skull: rostrum, nasals, and premaxillæ rather narrow; bullæ rather large; maxillary arch weak, narrow outer angle well developed; supraoccipital and interparietal broad.

Color. Upper parts dull buffy ochraceous, lined on head with dark-tipped hairs; end of nose dusky; patch at base of whiskers dusky; usual pale spots at base and fold of ear; dorsal tail stripe pale brownish drab; under stripe narrowing towards tip, often not passing end of vertebræ.

Measurements. Average of 40 specimens from type locality. Total length, 250; tail vertebræ, 140; hind foot, 40.8.

a. Perodipus montanus utahensis Merriam.

Perodipus montanus utahensis Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 143.

UTAH KANGAROO RAT.

Type locality. Ogden, Utah.

Geogr. Distr. Range unknown.

Genl. Char. Similar to *P. montanus*; hind foot smaller; upper parts less fulvous; ears darker, the anterior fold dusky except at extreme tip; ventral tail stripe continuous to tip of pencil.

Measurements. Total length, 260; tail vertebræ, 150; hind foot, 41.

733. *Perodipus ordi* (Woodhouse).

Dipodomys ordii Woodh., Proc. Acad. Nat. Scien. Phil., 1853, p. 235.

Perodipus ordi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 238. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 350. Zoöl. Ser.

ORD'S KANGAROO RAT.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. From the Snake Plains and their northward extensions south into the State of Chihuahua, Mexico.

a. Perodipus ordi palmeri (Allen).

Dipodops ordii palmeri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 276.

Perodipus ordi palmeri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 350. Zoöl. Ser.

PALMER'S KANGAROO RAT.

Type locality. San Luis Potosi, State of San Luis Potosi, Mexico.

Geogr. Distr. State of San Luis Potosi, Mexico.

b. Perodipus ordi columbianus Merriam.

Perodipus ordi columbianus Merr., Proc. Biol. Soc. Wash., ix, 1894, p. 115. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 238. Zoöl. Ser.

COLUMBIAN KANGAROO RAT.

Type locality. Umatilla, at mouth of Umatilla River, Plains of the Columbia, Umatilla County, Oregon.

Geogr. Distr. Plains of the Columbia, Oregon.

734. *Perodipus richardsoni* (Allen).

Dipodops richardsoni Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 277.

Perodipus richardsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 238. Zoöl. Ser.

RICHARDSON'S KANGAROO RAT.

Type locality. Source of the Beaver River, northwestern corner of Indian Territory.

Geogr. Distr. Oklahoma and Indian Territories.

735. *Perodipus chapmani* (Mearns).

Dipodomys chapmani Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 291.

Perodipus chapmani Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 237. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 350, fig. 66. Zoöl. Ser.

CHAPMAN'S KANGAROO RAT.

Type locality. Fort Verde, Yavapai County, Arizona.

Geogr. Distr. Elevated central tract, Arizona.

736. *Perodipus sennetti* (Allen).

Dipodops sennetti Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 226.

Perodipus sennetti Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 239. Zoöl. Ser.

SENNETT'S KANGAROO RAT.

Type locality. Near Brownsville, Cameron County, Texas.

Geogr. Distr. Southeastern Texas.

737. *Perodipus microps* Merriam.

Perodipus microps Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 145.

SMALL-FACE KANGAROO RAT.

Type locality. Lone Pine, Owens Valley, Inyo County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size small; ears small; color pale. Skull small and rather narrow; breadth of parietal less than the length; maxillary arch weak and slender, without external angle.

Color. General color, "pale buffy ochraceous, much paler than *ordi* or *columbianus*."

Measurements. Type. Total length, 282; tail vertebræ, 165; hind foot, 41.

a. Perodipus microps levipes Merriam.

Perodipus microps levipes Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 145.

LIGHT-FOOTED KANGAROO RAT.

Type locality. Perognathus Flat, Emigrant Gap, Panamint Mountains, California.

Geogr. Distr. Panamint Mountains, California.

Genl. Char. Size small; color as in *P. microps*. Skull small; bullæ bulging posteriorly; maxillary arches weak.

Color. Like *P. microps*.

Measurements. Type. Total length, 288; tail vertebræ, 164; hind foot, 42.4.

738. *Perodipus ingens* Merriam.

Perodipus ingens Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 141.

GREAT KANGAROO RAT.

Type locality. Painted Rock, twenty miles southeast of Simmler, Carrizo Plain, San Luis Obispo County, California.

Geogr. Distr. Carrizo Plain, and southwestern border of San Joaquin Valley, California.

Genl. Char. Size large; ears small.

Color. Buffy ochraceous; upper and lower tail bands black, uniting at end of vertebræ; pencil white washed with dusky.

Measurements. Total length, 360; tail vertebræ, 191; hind foot, 54. Skull: occipito-nasal length, 45; basal length, 34; zygomatic breadth, 23.5; breadth across bullæ, 30.5; breadth of frontals posteriorly, 17; behind lachrymals, 15; length of nasals, 18.

739. *Perodipus longipes* (Merriam).

Dipodops longipes Merr., N. Am. Faun., No. 3, 1890, p. 72.

Perodipus longipes Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 239. Zool. Ser.

LONG-FOOTED KANGAROO RAT.

Type locality. Foot of Echo Cliffs, Painted Desert, Coconino County, Arizona.

Geogr. Distr. Utah, Wyoming, Nebraska, New Mexico, and Arizona.

740. *Perodipus obscurus* Allen.

Perodipus obscurus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 603. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 351. Zool. Ser.

DUSKY KANGAROO RAT.

Type locality. Rio Sestin, State of Durango, Mexico.

Geogr. Distr. State of Durango.

741. *Perodipus compactus* (True).

Dipodomys compactus True, Proc. U. S. Nat. Mus., 1888, p. 160.

Perodipus compactus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 240. Zool. Ser.

THICK-SET KANGAROO RAT.

Type locality. Padre Island, Cameron County, Texas.

Geogr. Distr. Known only from the type locality.

Genus 97. *Microdipodops*. Small Kangaroo Rats.

***Microdipodops* Merr., N. Am. Faun., No. 5, 1891, p. 115. Type**

Microdipodops megacephalus Merriam.

742. *Microdipodops megacephalus* Merriam.

Microdipodops megacephalus Merr., N. Am. Faun., No. 5, 1891, p. 116. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 241, fig. 55. Zool. Ser.

LARGE-HEADED KANGAROO RAT.

Type locality. Halleck, East Humboldt Valley, Elko County, Nevada.

Geogr. Distr. Central Nevada.

a. *Microdipodops megacephalus oregonus* Merriam.

Microdipodops megacephalus oregonus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 127.

OREGON KANGAROO RAT.

Type locality. Lake Alvord, Alvord Desert, Harney County, Oregon.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *M. megacephalus*, but tail longer.

Color. Above olivaceous, slightly lined with black; beneath white; under side of tail with white streak.

Measurements. Total length, 153; tail vertebræ, 88; hind foot, 21.

743. *Microdipodops pallidus* Merriam.

Microdipodops pallidus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 127.

PALLID KANGAROO RAT.

Type locality. Ten miles east of Stillwater, near sink of the Humboldt and Carson, Churchill County, Nevada.

Geogr. Distr. Known only from the type locality.

Genl. Char. Tail long and without dark tip.

Color. Above pale buffy fulvous, lined with black; beneath white; side of nose, face and legs white; tail above buffy, beneath white.

Measurements. Total length, 171; tail vertebræ, 102; hind foot, 25.5.

744. Microdipodops californicus Merriam.

Microdipodops californicus Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 128.

CALIFORNIA KANGAROO RAT.

Type locality. Sierra Valley near Vinton, Plumas County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size of *M. megacephalus*; tail and hind foot longer.

Color. Above olivaceous, lined with black; beneath white; sides of nose, spot over the eye, behind and on the fold of the ear and feet white; tail above pale fulvous, blackish at tip, beneath white; sides of face and inner side of fore leg washed with pale buffy fulvous.

Measurements. Total length, 158; tail vertebræ, 91; hind foot, 25.

Subfamily II. Heteromyinæ.**Genus 98. Perognathus. Pocket Mice.**

Perognathus Max., Reise Innere N. Amer., 1, 1839, pp. 449-450; *Id.* Nov. Act. Phys. Med. Acad. Cæs. Leop.-Carol., xix, Pt. 1, 1839, pp. 368-373, pl. xxxiv. Type *Perognathus fasciatus* Maximilian.

Cricetodipus Peale, Rep. Mamm. and Ornith. U. S. Expl. Exped., 1848, p. 53, pl. 13, fig. 2.

Abromys (sic) Gray, Proc. Zool. Soc., 1868, p. 202.

Otognosis Coues, Proc. Acad. Nat. Scien. Phil., 1875, p. 305.

Chatodipus Merr., N. Am. Faun., No. 1, 1889, p. 5, pl. III, fig. 15.

Subgenus A. Perognathus.**745. Perognathus fasciatus Maximilian.**

Perognathus fasciatus Max., Nov. Act. Acad. Cæs. Leop.-Carol., xix, Pt. 1, 1839, p. 369, pl. xxxiv. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 242. Zool. Ser.

MAXIMILIAN'S POCKET MOUSE.

Type locality. Upper Missouri River near junction with the Yellowstone River.

Geogr. Distr. Eastern Montana and Wyoming, east into North and South Dakota.

a. *Perognathus fasciatus infraluteus* (Thomas).

Perognathus infraluteus Thomas, Ann. Mag. Nat. Hist., 6th Ser., XI, 1893, p. 406.

Perognathus fasciatus infraluteus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 242. Zoöl. Ser.

BUFF-BELLIED POCKET MOUSE.

Type locality. Loveland, Larimer County, Colorado.

Geogr. Distr. Known only from the type locality.

746. *Perognathus flavescens* Merriam.

Perognathus flavescens Merr., N. Am. Faun., No. 1, 1889, p. 11.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 243.
Zoöl. Ser.

Perognathus copei Rhoads, Proc. Acad. Nat. Scien. Phil., 1893, p. 404.

PLAINS POCKET MOUSE.

Type locality. Kennedy, Cherry County, Nebraska.

Geogr. Distr. Plains of South Dakota, Nebraska, and Kansas, south possibly to northern Texas, and west to base of the Rocky Mountains.

a. *Perognathus flavescens perniger* Osgood.

Perognathus flavescens perniger Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 127.

BLACK POCKET MOUSE.

Type locality. Vermillion, Clay County, South Dakota.

Geogr. Distr. Known only from the type locality.

Genl. Char. Like *P. flavescens* in size; upper parts black.

Color. Dorsal region black; sides and head black and ochraceous buff mixed; lateral line ochraceous buff; chin and narrow stripe on throat and breast white; rest of under parts ochraceous buff; sub-auricular spot buff; tail above dusky, beneath white; sides buffy; feet buffy; ear brownish black, edged with buff.

Measurements. Total length, 140; tail vertebræ, 68; hind foot, 17.

747. *Perognathus merriami* Allen.

Perognathus merriami Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1892, p. 45, pl. III, figs. 1-6. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 243. Zoöl. Ser. *Id.* Mamm. Middle

Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 353, figs. 67 and XLIX. Zoöl. Ser.

Cricetodipus flavus Thomas, Proc. Zoöl. Soc., 1888, p. 449.

Perognathus mearnsi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1896, p. 237.

MERRIAM'S POCKET MOUSE.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Washburn, Texas, to Roswell, New Mexico, east to San Antonio, west to Comstock on the Rio Grande, and south to Alta Mira, State of Tamaulipas, Mexico.

a. *Perognathus merriami gilvus* Osgood.

Perognathus merriami gilvus Osgood, N. Am. Faun., No. 18, 1900, p. 22. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 243. Zoöl. Ser.

DUTCHER'S POCKET MOUSE.

Type locality. Eddy, Eddy County, New Mexico.

Geogr. Distr. Western Texas and southeastern New Mexico.

748. *Perognathus flavus* Baird.

Perognathus flavus Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 332. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 244, fig. 56. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 354. Zoöl. Ser.

BAIRD'S POCKET MOUSE.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. Northeastern Colorado and western Nebraska to northern Mexico, westward into central Arizona, eastward to western Texas, and south into the State of Chihuahua, Mexico.

a. *Perognathus flavus bimaculatus* (Merriam).

Perognathus bimaculatus Merr., N. Am. Faun., No. 1, 1889, p. 12.

Perognathus apache Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 71. (Part.)

Perognathus flavus bimaculatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 244. Zoöl. Ser.

YAVAPAI POCKET MOUSE.

Type locality. Fort Whipple, Yavapai County, Arizona.

Geogr. Distr. Central and northeastern Arizona, and southeastern Utah.

b. *Perognathus flavus fuliginosus* (Merriam).

Perognathus fuliginosus Merr., N. Am. Faun., No. 3, 1890, p. 74.

Perognathus flavus fuliginosus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 244. Zoöl. Ser.

DUSKY POCKET MOUSE.

Type locality. Cedar belt northeast of San Francisco Mountain, Coconino County, Arizona. Altitude, 7,000 feet.

Geogr. Distr. Lava beds near San Francisco Mountain, Coconino County, northern Arizona.

c. *Perognathus flavus mexicanus* Merriam.

Perognathus flavus mexicanus Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 265. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 355. Zoöl. Ser.

MEXICAN POCKET MOUSE.

Type locality. Tlalpam, Federal District, Mexico.

Geogr. Distr. States of Zacatecas and San Luis Potosi to the State of Jalisco on the west, and State of Hidalgo on the east, and south to the State of Mexico.

749. *Perognathus apache* Merriam.

Perognathus apache Merr., N. Am. Faun., No. 1, 1889, p. 14. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 244. Zoöl. Ser.

APACHE POCKET MOUSE.

Type locality. Keam Cañon, Apache County, Arizona.

Geogr. Distr. Eastern Arizona, western New Mexico, and southern Utah.

a. *Perognathus apache melanotis* Osgood.

Perognathus apache melanotis Osgood, N. Am. Faun., No. 18, 1900, p. 27. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 356. Zoöl. Ser.

BLACK-EARED POCKET MOUSE.

Type locality. Casas Grandes, State of Chihuahua, Mexico.

Geogr. Distr. Known only from the type locality.

750. *Perognathus pericalles* Elliot.

Perognathus pericalles Elliot, Pub. Field Columb. Mus., III, 1903, p. 252. Zoöl. Ser.

BEAUTIFUL POCKET MOUSE.

Type locality. Keeler, Owens Lake, Inyo County, California.

Geogr. Distr. Range unknown.

Genl. Char. Size small; color pale; ear rather large.

Color. Entire upper parts deep cream buff, tinged with reddish, darkest on head and rump; sides pale cream buff; upper lip and entire under parts white; feet buffy white; tail above pale brown, beneath yellowish white; ear pale brown, with a buffy tuft of hair at base.

Measurements. Total length, 130; tail vertebrae, 73; hind foot, 19; ear, 6.5. Skull: total length, 21.5; Hensel, 14.5; zygomatic width, 11; interorbital width, 5; mastoid width, 12; greatest width of parietal, 10; length of interparietal, 2.5; length of nasals, 8.4; palatal length, 7.5; length of upper tooth row, 4; length of mandible, angle to tips of incisors, 10.5; length of lower tooth row, 3.

751. *Perognathus callistus* Osgood.

Perognathus callistus Osgood, N. Am. Faun., No. 18, 1900, p. 28.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 245.
Zool. Ser.

OSGOOD'S POCKET MOUSE.

Type locality. Kinney Ranch, Green River Basin, near Bitter Creek, Sweetwater County, Wyoming.

Geogr. Distr. Known only from the type locality.

752. *Perognathus elibatus* Elliot.

Perognathus elibatus Elliot, Pub. Field Columb. Mus., III, 1903, p. 252. Zool. Ser.

MOUNT PINOS POCKET MOUSE.

Type locality. Mount Pinos, Ventura County, California. Altitude, 5,000 feet.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size small; color dark; tail long.

Color. Upper parts black and buff, the former color predominating; nose, sides of face, line over eye, and lateral line cream buff; under parts, hands, and feet white; tail, basal half above buff, tinged with dusky, remainder dusky, beneath yellowish white; ears brown, a white spot over each side of margin near notch; whiskers black; line on sides of nose black.

Measurements. Total length, 146; tail, 77; hind foot, 20.5; ear, 7. Skull: total length, 22; Hensel, 15; zygomatic width, 11; interorbital constriction, 5; mastoid width, 12; greatest width of parietal, 9; length of nasals, 7; palatal length, 9; length of upper tooth row, 3; length of mandible, 11; length of lower tooth row, 3.

753. *Perognathus panamintinus* (Merriam).

Perognathus longimembris panamintinus Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 265.

Perognathus panamintinus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 245. Zool. Ser.

PANAMINT POCKET MOUSE.

Type locality. Perognathus Flat, Panamint Mountains, Inyo County, California. Altitude, 5,200 feet.

Geogr. Distr. Panamint Mountains, California, and eastward through southern Nevada to St. George, Utah.

a. Perognathus panamintinus bangsi (Mearns).

Perognathus longimembris bangsi Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 300.

Perognathus panamintinus bangsi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 245. Zool. Ser.

BANGS' POCKET MOUSE.

Type locality. Palm Springs, Colorado Desert, Riverside County, California.

Geogr. Distr. Desert valleys in southern and southeastern California.

b. Perognathus panamintinus arenicola Stephens.

Perognathus panamintinus arenicola Steph., Proc. Biol. Soc. Wash., XIII, 1900, p. 153. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 246. Zool. Ser.

SAND-DWELLING POCKET MOUSE.

Type locality. San Felipe Narrows, San Diego County, California.

Geogr. Distr. Known only from the type locality.

c. Perognathus panamintinus brevinasus Osgood.

Perognathus panamintinus brevinasus Osgood, N. Am. Faun., No. 18, 1900, p. 30. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 246. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 355. Zool. Ser.

SHORT-NOSED POCKET MOUSE.

Type locality. San Bernardino, San Bernardino County, California.

Geogr. Distr. Southeastern California from Coso Valley south to Oro Grande in the Mohave Desert, and westward to Fort Tejon; Daggett, and the Calico Mountains appearing to be the eastern limit of the range. Lower California.

754. *Perognathus nevadensis* Merriam.

Perognathus nevadensis Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 264. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 246. Zool. Ser.

NEVADA POCKET MOUSE.

Type locality. Halleck, East Humboldt Valley, Elko County, Nevada.

Geogr. Distr. Central Nevada north to southern Oregon, and northern Utah.

755. *Perognathus pacificus* Mearns.

Perognathus pacificus Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 299. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 246. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 355. Zoöl. Ser.

PACIFIC POCKET MOUSE.

Type locality. Mouth of Tijuana River, Mexican boundary Monument, No. 258, San Diego County, California.

Geogr. Distr. Edge of the Pacific Ocean on a flat at the mouth of the Tijuana River. Range unknown.

756. *Perognathus amplus* Osgood.

Perognathus amplus Osgood, N. Am. Faun., No. 18, 1900, p. 32. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 247. Zoöl. Ser.

LORING POCKET MOUSE.

Type locality. Fort Verde, Yavapai County, Arizona.

Geogr. Distr. Known only from the type locality.

757. *Perognathus longimembris* (Coues).

Otognosis longimembris Coues, Proc. Acad. Nat. Scien. Phil., 1875, p. 305.

Cricetodipus parvus True, Proc. U. S. Nat. Mus., 1882, p. 474.

Perognathus inornatus Merr., N. Am. Faun., No. 1, 1889, p. 15.

Perognathus longimembris Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 247. Zoöl. Ser.

SAN JOAQUIN POCKET MOUSE.

Type locality. Old Fort Tejon, Kern County, California.

Geogr. Distr. San Joaquin Valley, southern California.

758. *Perognathus parvus* (Peale).

Cricetodipus parvus Peale, U. S. Expl. Exped., VIII, 1848, p. 53, pl. 13, fig. 2, juv.

Perognathus parvus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 247. Zoöl. Ser.

OREGON POCKET MOUSE.

Type locality. The Dalles? Wasco County, Oregon.

Geogr. Distr. Range unknown.

759. *Perognathus monticola* Baird.

Perognathus monticola Baird, N. Am. Mamm., 1857, p. 422. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 248. Zoöl. Ser.

Perognathus parvus Osgood, N. Am. Faun., No. 18, 1900, p. 34. (nec Peale.)

BAIRD'S POCKET MOUSE.

Type locality. St. Mary's Mission? Montana, west of Rocky Mountains.

Geogr. Distr. Valley of the Yakima River, Washington, south to central and southeastern Oregon.

a. Perognathus monticola mollipilosus (Coues).

Perognathus mollipilosus Coues, Proc. Acad. Nat. Scien. Phil., 1875, p. 296.

Perognathus monticola Towns., Proc. U. S. Nat. Mus., x, 1888, p. 177. (nec Baird.)

Perognathus monticola mollipilosus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 249. Zool. Ser.

COUES' POCKET MOUSE.

Type locality. Fort Crook, Shasta County, California.

Geogr. Distr. Northeastern California to Klamath Basin, Oregon.

b. Perognathus monticola olivaceus (Merriam).

Perognathus olivaceus Merr., N. Am. Faun., No. 1, 1889, p. 15.

Perognathus olivaceus amœnus Merr., N. Am. Faun., No. 1, 1889, p. 16.

Perognathus monticola olivaceus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 249. Zool. Ser.

GREAT BASIN POCKET MOUSE.

Type locality. Kelton, near north end of Great Salt Lake, Boxelder County, Utah.

Geogr. Distr. Northern Utah and southern Idaho to Owens Valley, southwestern California, west to southern Oregon and northeastern California.

c. Perognathus monticola magruderensis (Osgood).

Perognathus parvus magruderensis Osgood, N. Am. Faun., No. 18, 1900, p. 38.

Perognathus monticola magruderensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 249. Zool. Ser.

MOUNT MAGRUDER POCKET MOUSE.

Type locality. Mount Magruder, Nevada, near boundary between Inyo County, California, and Esmeralda County, Nevada. Altitude, 8,000 feet.

Geogr. Distr. Southern Nevada and adjacent parts of eastern California.

760. Perognathus alticola Rhoads.

Perognathus alticola Rhoads, Proc. Acad. Nat. Scien. Phil., 1893, p. 412. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 249. Zool. Ser.

WHITE-EARED POCKET MOUSE.

Type locality. Squirrel Inn, San Bernardino Mountains, San Bernardino County, California.

Geogr. Distr. Known only from the type locality.

761. *Perognathus lordi* (Gray).

Abromys (sic) lordi Gray, Proc. Zool. Soc., 1868, p. 202.

Perognathus lordi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 250. Zool. Ser.

NORTHWEST POCKET MOUSE.

Type locality. Southern British Columbia, Canada.

Geogr. Distr. Southern British Columbia to the plains of the Columbia River, Washington.

a. Perognathus lordi columbianus (Merriam).

Perognathus columbianus Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 263.

Perognathus lordi columbianus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 250. Zool. Ser.

COLUMBIAN POCKET MOUSE.

Type locality. Pasco, Franklin County, Washington.

Geogr. Distr. Known only from the type locality.

762. *Perognathus formosus* Merriam.

Perognathus formosus Merr., N. Am. Faun., No. 1, 1889, p. 17, Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 250. Zool. Ser.

LONG-TAILED POCKET MOUSE.

Type locality. St. George, Washington County, Utah.

Geogr. Distr. Southwestern Utah, southern Nevada, and adjacent portions of California as far south as Copper City.

763. *Perognathus mesembrinus* Elliot.

Perognathus mesembrinus Elliot, Pub. Field Columb. Mus., III, 1903, p. 251. Zool. Ser.

SOUTHERN POCKET MOUSE.

Type locality. Palm Springs, Colorado Desert, Riverside County, California.

Geogr. Distr. Southern California, probably into Lower California, Mexico.

Genl. Char. Color pale; tail hairy, pencil large, bushy; size medium.

Color. Upper parts mixed drab gray and buff; no lateral line; thighs like the back; lips, entire under parts, fore legs, fore and hind feet white; tail above with pencil brownish drab, beneath whitish; ear dark brown; bases covered with tufts of drab gray.

Measurements. Total length, 195; tail vertebrae, 114; hind foot, 23; ear, 11. Skull: total length, 21; Hensel, 18; zygomatic width, 13; interorbital constriction, 7; mastoid width, 14; greatest parietal width, 10.5; length of nasals, 9.4; palatal length, 10; length of upper tooth row, 4; length of mandible, 12.5; length of lower tooth row, 3.5.

Subgenus B. *Chaetodipus*.

764. *Perognathus baileyi* Merriam.

Perognathus baileyi Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 262, fig. 1. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 251. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 361. Zoöl. Ser.

BAILEY'S POCKET MOUSE.

Type locality. Magdalena, State of Sonora, Mexico.

Geogr. Distr. South central Arizona, south into the State of Sonora and Lower California, Mexico.

a. Perognathus baileyi rhydinorhis Elliot.

Perognathus baileyi rhydinorhis Elliot, Pub. Field Columb. Mus., III, 1903, p. 167. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 362. Zoöl. Ser.

SAN QUENTIN POCKET MOUSE.

Type locality. San Quentin, Lower California, Mexico.

Geogr. Distr. West coast of Lower California, Mexico, in the vicinity of San Quentin.

765. *Perognathus cneus* Elliot.

Perognathus cneus Elliot, Pub. Field Columb. Mus., III, 1903, p. 169. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 362. Zoöl. Ser.

BUFF-COLORED POCKET MOUSE.

Type locality. Rosarito, San Pedro Martir Mountains, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

766. *Perognathus hispidus* Baird.

Perognathus fasciatus Baird, N. Am. Mamm., 1857, p. 420. (nec Max.)

Perognathus hispidus Baird, N. Am. Mamm., 1857, p. 421.

Perognathus paradoxus spilotus Merr., N. Am. Faun., No. 1, 1889, p. 25.

Perognathus hispidus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 251. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 360. Zoöl. Ser.

HISPID POCKET MOUSE.

Type locality. Charco Escondido, State of Tamaulipas, Mexico.

Geogr. Distr. Southern and western Texas, north to Oklahoma and south to the border states of Mexico.

a. Perognathus hispidus paradoxus (Merriam).

Perognathus paradoxus Merr., N. Am. Faun., No. 1, 1889, p. 24.

Perognathus latirostris Rhoads, Amer. Nat., xxviii, 1894, p. 185.

Perognathus conditi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 318.

Perognathus hispidus paradoxus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 252. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 361. Zoöl. Ser.

KANSAS POCKET MOUSE.

Type locality. Banner, Trego County, Kansas.

Geogr. Distr. The Dakotas to Texas, westward to the base of the Rocky Mountains.

b. Perognathus hispidus maximus Elliot.

Perognathus hispidus maximus Elliot, Pub. Field Columb. Mus., III, 1903, p. 253. Zoöl. Ser.

GREAT POCKET MOUSE.

Type locality. Noble, Oklahoma Territory.

Geogr. Distr. Oklahoma Territory. Range unknown.

Genl. Char. Similar to *P. h. paradoxus*, but brighter and richer in color; hind foot and other dimensions larger.

Color. Upper parts mixed ochraceous and black, the latter color predominating; lateral line from nose to rump, including shoulders and upper parts of arms and hind legs very bright ochraceous buff; face and orbital region bright ochraceous buff lightly lined with black; under parts, hands, and feet white; ear buff on outside, dusky inside; tail above blackish brown, sides buff, beneath white.

Measurements. Total length, 243; tail vertebræ, 110; hind foot, 29. Skull: total length, 34; Hensel, 25; zygomatic width, 16.5; mastoid width, 16; length of parietal, 5; greatest width of parietal, 14; length of nasals, 10.5; palatal length, 14; length of upper tooth row, 5; length of mandible, 20; length of lower tooth row, 4.

c. Perognathus hispidus zacatecæ Osgood.

Perognathus hispidus zacatecæ Osgood, N. Am. Faun., No. 18, 1900, p. 45. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 361. Zoöl. Ser.

ZACATECAS POCKET MOUSE.

Type locality. Valparaiso, State of Zacatecas, Mexico.

Geogr. Distr. States of Zacatecas to Celaya in State of Guajuato, Mexico.

767. *Perognathus penicillatus* Woodhouse.

Perognathus penicillatus Woodh., Proc. Acad. Nat. Scien. Phil., 1852, p. 200. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 252. Zoöl. Ser.

DESERT POCKET MOUSE.

Type locality. San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Vicinity of the Colorado River from Bunkerville, Nevada, to Yuma, Arizona.

a. *Perognathus penicillatus angustirostris* Osgood.

Perognathus penicillatus angustirostris Osgood, N. Am. Faun., No. 18, 1900, p. 47. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 252. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 358. Zoöl. Ser.

SLENDER-NOSED POCKET MOUSE.

Type locality. Carriso Creek, Colorado Desert, San Diego County, California.

Geogr. Distr. Colorado Desert, California, to southwestern Arizona, and northern Lower California, Mexico.

b. *Perognathus penicillatus pricei* (Allen).

Perognathus pricei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 318.

Perognathus obscurus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 216. (nec Merr.)

Perognathus penicillatus pricei Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 253. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 358. Zoöl. Ser.

PRICE'S POCKET MOUSE.

Type locality. Oposura, State of Sonora, Mexico.

Geogr. Distr. South central Arizona, into northern Mexico, west of the Sierra Madre.

c. *Perognathus penicillatus eremicus* (Mearns).

Perognathus eremicus Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 300. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 253. Zoöl. Ser.

Perognathus penicillatus eremicus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 359. Zoöl. Ser.

EASTERN DESERT POCKET MOUSE.

Type locality. Fort Hancock, El Paso County, Texas.

Geogr. Distr. Western Texas south to north central Mexico east of the Sierra Madre, to La Ventura, State of Coahuila.

d. *Perognathus penicillatus arenarius* (Merriam).

Perognathus arenarius Merr., Proc. Cal. Acad. Scien., 2d Ser., IV, 1894, p. 461.

Perognathus penicillatus arenarius Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 358. Zoöl. Ser.

LITTLE DESERT POCKET MOUSE.

Type locality. San Jorge, near Comondu, Lower California, Mexico.

Geogr. Distr. East coast of Lower California.

768. *Perognathus helleri* Elliot.

Perognathus helleri Elliot, Pub. Field Columb. Mus., III, 1903, p. 166. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 360. Zoöl. Ser.

HELLER'S POCKET MOUSE.

Type locality. San Quentin, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

769. *Perognathus stephensi* Merriam.

Perognathus stephensi Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 267. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 253. Zoöl. Ser.

STEPHENS' POCKET MOUSE.

Type locality. Mesquite Valley, northwest arm of Death Valley, Inyo County, California.

Geogr. Distr. Known only from the type locality.

770. *Perognathus pernix* Allen.

Perognathus pernix Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 149. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 359. Zoöl. Ser.

SINALOA POCKET MOUSE.

Type locality. Rosario, State of Sinaloa, Mexico.

Geogr. Distr. States of Sinaloa and Jalisco, Mexico.

a. *Perognathus pernix rostratus* Osgood.

Perognathus pernix rostratus Osgood, N. Am. Faun., No. 18, 1900, p. 51. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 359. Zoöl. Ser.

BROAD-NOSED POCKET MOUSE.

Type locality. Camoa, Rio Mayo, State of Sonora, Mexico.

Geogr. Distr. Southern part of the State of Sonora, and northern portion of the State of Sinaloa, plains of the coast, Mexico.

771. *Perognathus intermedius* Merriam.

Perognathus intermedius Merr., N. Am. Faun., No. 1, 1889, p. 18, pl. 11, fig. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 253. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 364. Zoöl. Ser.

Perognathus obscurus Merr., N. Am. Faun., No. 1, 1889, p. 20.

INTERMEDIATE POCKET MOUSE.

Type locality. Mud Spring, Mohave County, Arizona.

Geogr. Distr. Arizona, New Mexico, and northern Mexico.

772. *Perognathus nelsoni* Merriam.

Perognathus nelsoni Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 266. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 364. Zoöl. Ser.

NELSON'S POCKET MOUSE.

Type locality. Hacienda La Parada, 25 miles northwest of the city of San Luis Potosi, State of San Luis Potosi, Mexico.

Geogr. Distr. States of San Luis Potosi and Durango, south into the State of Jalisco and east into the State of Tamaulipas, Mexico.

a. *Perognathus nelsoni canescens* (Merriam).

Perognathus intermedius canescens Merr., Proc. Acad. Nat. Scien. Phil., 1894, p. 267.

Perognathus nelsoni canescens Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 365. Zoöl. Ser.

JARAL POCKET MOUSE.

Type locality. Jaral, State of Coahuila, Mexico.

Geogr. Distr. Known only from the type locality

773. *Perognathus goldmani* Osgood.

Perognathus goldmani Osgood, N. Am. Faun., No. 18, 1900, p. 54.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 365. Zoöl. Ser.

GOLDMAN'S POCKET MOUSE.

Type locality. Sinaloa, State of Sinaloa, Mexico.

Geogr. Distr. States of Sonora and Sinaloa, Mexico; coast plains.

a. *Perognathus goldmani artus* (Osgood).

Perognathus artus Osgood, N. Am. Faun., No. 18, 1900, p. 55.

Perognathus goldmani artus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 365. Zoöl. Ser.

BATOPILAS POCKET MOUSE.

Type locality. Batopilas, State of Chihuahua, Mexico.

Geogr. Distr. States of Chihuahua, Durango, and Sinaloa, Mexico.

774. *Perognathus fallax* Merriam.

Perognathus fallax Merr., N. Am. Faun., No. 1, 1889, p. 19.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 254.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. 1, 1904, p. 366. Zoöl. Ser.

SHORT-EARED CALIFORNIA POCKET MOUSE.

Type locality. Reche Cañon, three miles southeast of Colton, San Bernardino County, California.

Geogr. Distr. Southern California, and northern Lower California, Mexico.

a. *Perognathus fallax pallidus* Mearns.

Perognathus fallax pallidus Mearns, Proc. Biol. Soc. Wash., xiv,

1901, p. 135. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. 1, 1904, p. 366. Zoöl. Ser.

PALLID POCKET MOUSE.

Type locality. Mountain Spring, east slope of the Coast Range Mountains on the Mexican boundary line, San Diego County, California.

Geogr. Distr. Riverside County, southern California, into Lower California.

775. *Perognathus anthonyi* Osgood.

Perognathus anthonyi Osgood, N. Am. Faun., No. 18, 1900, p. 56.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,

Pt. 1, 1904, p. 366. Zoöl. Ser.

ANTHONY'S POCKET MOUSE.

Type locality. South Bay, Cerros or Cedros Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

776. *Perognathus femoralis* Allen.

Perognathus femoralis Allen, Bull. Am. Mus. Nat. Hist. N. Y.,

1891, p. 281. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,

1901, p. 254. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. In-

dies, F. C. M. Pub., iv, Pt. 1, 1904, p. 367. Zoöl. Ser.

GREAT CALIFORNIA POCKET MOUSE.

Type locality. Dulzura, San Diego County, California.

Geogr. Distr. Northern Lower California, Mexico, and adjoining portions of southern California.

a. Perognathus femoralis mesopolius Elliot.

Perognathus femoralis mesopolius Elliot, Pub. Field Columb. Mus., III, 1903, p. 168. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 367, fig. 68. Zoöl. Ser.

GRAY POCKET MOUSE.

Type locality. Piñon, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 5,000 feet.

Geogr. Distr. San Pedro Martir Range at high elevations.

777. *Perognathus californicus* Merriam.

Perognathus californicus Merr., N. Am. Faun., No. 1, 1889, p. 26. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 254. Zoöl. Ser.

CALIFORNIA POCKET MOUSE.

Type locality. Berkeley, Alameda County, California.

Geogr. Distr. Coast region of California from San Francisco Bay to Bear Valley, San Benito Valley, San Benito County, California.

a. Perognathus californicus dispar Osgood.

Perognathus californicus dispar Osgood, N. Am. Faun., No. 18, 1900, p. 58. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 255. Zoöl. Ser.

ALLEN'S POCKET MOUSE.

Type locality. Carpenteria, Santa Barbara County, California.

Geogr. Distr. Coast valleys of California from San Bernardino to San Benito County, and north along the foothills of the west slope of the Sierras to Placer County.

b. Perognathus californicus ochrus Osgood.

Perognathus californicus ochrus Osgood, Proc. Biol. Soc. Wash., XVII, 1904, p. 128.

YELLOW POCKET MOUSE.

Type locality. Santiago Springs, Kern County, California.

Genl. Char. Like *P. c. dispar*, but paler.

Color. Upper parts mixed with pinkish buff and dusky; lateral line pinkish buff; under parts creamy white; tail above hair brown, beneath white; hands and feet white.

Measurements. Total length, 200; tail vertebræ, 108.7; hind foot, 25.

778. *Perognathus spinatus* Merriam.

Perognathus spinatus Merr., N. Am. Faun., No. 1, 1889, p. 21. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 255. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 363. Zoöl. Ser.

SPINY POCKET MOUSE.

Type locality. Twenty-five miles below the Needles, Colorado River, San Bernardino County, California.

Geogr. Distr. Southern California, and northern Lower California Mexico.

a. Perognathus spinatus peninsulæ Merriam.

Perognathus spinatus peninsulæ Merr., Proc. Cal. Acad. Scien., 2d Ser., IV, 1894, p. 460. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 363. Zool. Ser.

CAPE ST. LUCAS POCKET MOUSE.

Type locality. San José del Cabo, Lower California, Mexico.

Geogr. Distr. Cape region of Lower California.

b. Perognathus spinatus bryanti (Merriam).

Perognathus bryanti Merr., Proc. Cal. Acad. Scien., 2d Ser., IV, 1894, p. 458.

Perognathus spinatus bryanti Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 364. Zool. Ser.

BRYANT'S POCKET MOUSE.

Type locality. San José Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

779. Perognathus margaritæ Merriam.

Perognathus margaritæ Merr., Proc. Cal. Acad. Scien., 2d Ser., IV, 1894, p. 459. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 363. Zool. Ser.

MARGARITA POCKET MOUSE.

Type locality. Santa Margarita Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

Genus 99. Heteromys. Spiny Pouched Rats.

Heteromys Desm., Nouv. Dict. Hist. Nat. Mamm., 1817, p. 313.

Type *Mus anomalus* Thompson.

Dasynotus Wagl., Nat. Syst. Amphib., 1830, p. 21.

Sacomys F. Cuv., Mém. Mus. Hist. Nat. Paris, x, 1823, p. 419.

Xylomys Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 43.

Liomys Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 44.

Subgenus A. Heteromys.**780. Heteromys irroratus** Gray.

Heteromys irroratus Gray, Proc. Zool. Soc., 1868, p. 205. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 369. Zool. Ser.

LA PARADA SPINY RAT.

Type locality. La Parada, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

781. *Heteromys bulleri* Thomas.

Heteromys bulleri Thomas, Ann. Mag. Nat. Hist., 6th Ser., xi, 1893, p. 330. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 369. Zoöl. Ser.

BULLER'S SPINY RAT.

Type locality. La Laguna, Sierra de Juanacatlan, State of Jalisco, Mexico. Altitude, 7,000 feet.

Geogr. Distr. High elevations, State of Jalisco, Mexico.

782. *Heteromys salvini* Thomas.

Heteromys longicaudatus Alston, Biol. Centr. Amer., Mamm., i, 1880, p. 167, pl. xvii, fig. 2. (nec Gray.)

Heteromys salvini Thomas, Ann. Mag. Nat. Hist., 6th Ser., xi, 1893, p. 331. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 370. Zoöl. Ser.

SALVIN'S SPINY RAT.

Type locality. Dueñas, Guatemala.

Geogr. Distr. Guatemala, Central America.

a. *Heteromys salvini nigrescens* Thomas.

Heteromys salvini nigrescens Thomas, Ann. Mag. Nat. Hist., 6th Ser., xii, 1893, p. 234. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 370. Zoöl. Ser.

BLACK SPINY RAT.

Type locality. Costa Rica.

Geogr. Distr. Costa Rica, Central America.

783. *Heteromys gaumeri* Allen and Chapman.

Heteromys gaumeri Allen and Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 9. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 371, fig. 69. Zoöl. Ser.

GAUMER'S SPINY RAT.

Type locality. Chichen Itza, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico.

784. *Heteromys annectens* Merriam.

Heteromys annectens Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 43. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 371. Zoöl. Ser.

ALLIED SPINY RAT.

Type locality. Pluma, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

785. *Heteromys hispidus* Allen.

Heteromys hispidus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897,
p. 56. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. 1, 1904, p. 371. Zoöl. Ser.

HISPID SPINY RAT.

Type locality. Compostella, Territorio de Tepic, Mexico.

Geogr. Distr. Territorio de Tepic, Mexico.

786. *Heteromys desmarestianus* Gray.

Heteromys desmarestianus Gray, Proc. Zoöl. Soc., 1868, p. 204.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. 1, 1904, p. 372. Zoöl. Ser.

COBAN SPINY RAT.

Type locality. Coban, Guatemala.

Geogr. Distr. Guatemala, Central America.

787. *Heteromys longicaudatus* Gray.

Heteromys longicaudatus Gray, Proc. Zoöl. Soc., 1868, p. 204.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. 1, 1904, p. 372. Zoöl. Ser.

LONG-TAILED SPINY RAT.

Type locality. Mexico.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

788. *Heteromys repens* Bangs.

Heteromys repens Bangs, Bull. Mus. Comp. Zoöl., xxxix, 1902,
p. 45. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. 1, 1904, p. 372. Zoöl. Ser.

BOQUETE SPINY RAT.

Type locality. Boquete, Chiriqui, Panama. Altitude, 4,000 feet.

Geogr. Distr. Panama. Range unknown.

789. *Heteromys goldmani* Merriam.

Heteromys goldmani Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 41.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. 1, 1904, p. 373. Zoöl. Ser.

GOLDMAN'S SPINY RAT.

Type locality. Chicharras, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

a. *Heteromys goldmani lepturus* Merriam.

Heteromys goldmani lepturus Merr., Proc. Biol. Soc. Wash., xv,
1902, p. 42. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 1, 1904, p. 373. Zoöl. Ser.

SHORT-TAILED SPINY RAT.

Type locality. Mountains near Santo Domingo, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

790. *Heteromys griseus* Merriam.

Heteromys griseus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 42.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,

Pt. I, 1904, p. 373. Zoöl. Ser.

GRAY SPINY RAT.

Type locality. Mountains near Tonala, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

791. *Heteromys adpersus* Peters.

Heteromys adpersus Peters, Monatsb. K. Preuss. Akad. Wiss.

Berl., 1874, p. 357. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. I, 1904, p. 373. Zoöl. Ser.

SPOTTED SPINY RAT.

Type locality. Panama.

Geogr. Distr. Panama.

Subgenus B. *Liomys*.**792. *Heteromys veræcrucis* (Merriam).**

Liomys veræcrucis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 47.

Heteromys veræcrucis Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. I, 1904, p. 379. Zoöl. Ser.

VERA CRUZ SPINY MOUSE.

Type locality. San Andreas Tuxtla, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico.

793. *Heteromys obscurus* (Merriam).

Liomys obscurus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 48.

Heteromys obscurus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. I, 1904, p. 379. Zoöl. Ser.

DUSKY SPINY MOUSE.

Type locality. Carrizal, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico.

794. *Heteromys phæurus* (Merriam).

Liomys phæura! Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 48.

Heteromys phæurus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. I, 1904, p. 379. Zoöl. Ser.

DARK-TAILED SPINY MOUSE.

Type locality. Pinotepa, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

795. *Heteromys orbitalis* (Merriam).

Liomys orbitalis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 48.

Heteromys orbitalis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., iv, Pt. 1, 1904, p. 380. Zoöl. Ser.

CATEMACO SPINY MOUSE.

Type locality. Catemaco, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico.

796. *Heteromys crispus* (Merriam).

Liomys crispus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 49.

Heteromys crispus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., iv, Pt. 1, 1904, p. 380. Zoöl. Ser.

CURLY SPINY MOUSE.

Type locality. Tonalá, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

a. *Heteromys crispus setosus* (Merriam).

Liomys crispus setosus Merr., Proc. Biol. Soc. Wash., xv, 1902,
p. 49.

Heteromys crispus setosus Elliot, Mamm. Middle Amer. & W. In-
dies, F. C. M. Pub., iv, Pt. 1, 1904, p. 380. Zoöl. Ser.

HUEHUETAN SPINY MOUSE.

Type locality. Huehuetan, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico.

797. *Heteromys heterothrix* (Merriam).

Liomys heterothrix Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 50.

Heteromys heterothrix Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., iv, Pt. 1, 1904, p. 380. Zoöl. Ser.

HONDURAS SPINY MOUSE.

Type locality. San Pedro Sula, Honduras.

Geogr. Distr. Honduras, Central America.

798. *Heteromys paralius* Elliot.

Heteromys paralius Elliot, Pub. Field Columb. Mus., iii, 1903,
p. 233. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. 1, 1904, p. 381. Zoöl. Ser.

LITTORAL SPINY MOUSE.

Type locality. San Carlos, State of Vera Cruz, Mexico.

Geogr. Distr. Coast district of the State of Vera Cruz, Mexico.

799. *Heteromys albolimbatus* Gray.

Heteromys albolimbatus Gray, Proc. Zoöl. Soc., 1868, p. 205.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,
Pt. 1, 1904, p. 375, fig. 70. Zoöl. Ser.

GRAY'S SPINY MOUSE.

Type locality. Undetermined. "La Parda, Mexico?"

Geogr. Distr. Undetermined. Specimens from the States of Michoacan and Morelos.

800. *Heteromys canus* (Merriam).

Liomys canus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 44.

Heteromys canus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. 1, 1904, p. 375. Zoöl. Ser.

HOARY SPINY MOUSE.

Type locality. Parral, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico.

801. *Heteromys alleni* Coues.

Heteromys alleni Coues, Bull. Mus. Comp. Zoöl., viii, 1881, p. 187.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 256,

fig. 58. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. 1, 1904, p. 376, fig. 100. Zoöl. Ser.

ALLEN'S SPINY MOUSE.

Type locality. Hacienda Angostura, Rio Verde, State of San Luis Potosi, Mexico.

Geogr. Distr. State of San Luis Potosi, Mexico.

802. *Heteromys torridus* (Merriam).

Liomys torridus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 45.

Heteromys torridus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. 1, 1904, p. 376. Zoöl. Ser.

TORRID SPINY MOUSE.

Type locality. Cuicatlan, State of Oaxaca, Mexico.

Geogr. Distr. Known only from the type locality.

a. *Heteromys torridus minor* (Merriam).

Liomys torridus minor Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 45.

Heteromys torridus minor Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 377. Zoöl. Ser.

SMALLEST SPINY MOUSE.

Type locality. Huajuapam, State of Oaxaca.

Geogr. Distr. State of Oaxaca, Mexico.

803. *Heteromys exiguus* Elliot.

Heteromys exiguus Elliot, Pub. Field Columb. Mus., iii, 1903, p. 146. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. 1, 1904, p. 377. Zoöl. Ser.

LITTLE SPINY MOUSE.

Type locality. Puente de Ixtla, State of Morelos, Mexico.

Geogr. Distr. State of Morelos, Mexico.

804. *Heteromys plantinarensis* Merriam.

Liomys plantinarensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 46.

Heteromys plantinarensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 377. Zoöl. Ser.

PLANTINAR SPINY MOUSE.

Type locality. Plantinar, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico.

805. *Heteromys pictus* Thomas.

Heteromys pictus Thomas, Ann. Mag. Nat. Hist., 6th Ser., xii, 1893, p. 233. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 377. Zoöl. Ser.

PAINTED SPINY MOUSE.

Type locality. Mineral San Sebastian, State of Jalisco, Mexico. Altitude, 4,300 feet.

Geogr. Distr. State of Jalisco, Mexico.

a. *Heteromys pictus rostratus* (Merriam).

Liomys pictus rostratus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 46.

Heteromys pictus rostratus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 378. Zoöl. Ser.

LONG-NOSED SPINY MOUSE.

Type locality. Ometepepec, State of Guerrero, Mexico.

Geogr. Distr. State of Guerrero, Mexico.

b. *Heteromys pictus isthmius* (Merriam).

Liomys pictus isthmius Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 46.

Heteromys pictus isthmius Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 378. Zoöl. Ser.

ISTHMIAN SPINY MOUSE.

Type locality. Tehuantepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

806. *Heteromys parviceps* (Goldman).

Liomys parviceps Goldm., Proc. Biol. Soc. Wash., xvii, 1904, p. 82.

Heteromys parviceps Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 378. Zoöl. Ser.

URUAPAN SPINY MOUSE.

Type locality. Uruapan, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, Mexico.

807. *Heteromys sonorana* (Merriam).

Liomys sonorana Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 47.

Heteromys sonorana Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. I, 1904, p. 379. Zoöl. Ser.

SONORA SPINY MOUSE.

Type locality. Alamos, State of Sonora, Mexico.

Geogr. Distr. State of Sonora, Mexico.

808. *Heteromys texensis* (Merriam).

Liomys texensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 44.

TEXAN SPINY MOUSE.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Southern Texas. Range unknown.

Genl. Char. Size small; hind foot with five tubercles on soles; rostrum narrow; interparietal small, oval.

Color. Above grayish brown or drab, grizzled with red and blackish hairs, red predominating; under parts yellowish white; ears edged with whitish; hind feet and under side of tail white.

Measurements. Total length, 231; tail vertebræ, 114; hind foot, 30.

Subgenus C. *Xylomys*.**809. *Heteromys nelsoni* (Merriam).**

Xylomys nelsoni Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 43.

Heteromys nelsoni Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. I, 1904, p. 381. Zoöl. Ser.

NELSON'S SPINY MOUSE.

Type locality. Pinabete, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.

Family VII. ***Zapodidae. Jumping Mice.**Subfamily I. **Zapodinae.**Genus 100. **Zapus.**

Zapus Coues, Bull. U. S. Geol. Surv. Terr., 2d Ser., 1, 1875, p. 253.

Type *Dipus hudsonius* Zimmermann.

*See Lyon, Proc. U. S. Nat. Mus., 1901, pp. 659-668, pls. 25-27, in which paper the author decides that *Zapus* and *Sminthus* should be associated in one group as the family *Zapodidae*.

- Dipus* Zimm., Geog. Gesch. Mensch. u. vierfüß. Thiere, II, 1780, p. 358. (Old World Species.)
Gerbillus Rafin., Précis des Découv. Somologiques, 1814, p. 14. (nec Demarest, 1804.)
Meriones F. Cuv., Dents de Mamm., 1823, pp. 187, 256. (nec Illiger, 1811.)
Jaculus Wagl., Nat. Syst. Amphib., 1830, p. 23. (nec Erxleben, 1777.)
Napæozapus Preble, N. Am. Faun., No. 15, 1899, p. 33.
Eozapus Preble, N. Am. Faun., No. 15, 1899, p. 37.

Subgenus A. *Zapus*.

810. *Zapus hudsonius* (Zimmermann).

- Dipus hudsonius* Zimm., Geog. Gesch. Mensch. u. vierfüß. Thiere, II, 1780, p. 358.
Dipus labradorius Kerr, Anim. Kingd., 1792, p. 276.
Dipus canadensis Davies, Trans. Linn. Soc. Lond., IV, 1798, p. 157.
Jaculus americanus Wagl., Nat. Syst. Amphib., 1830, p. 23.
Meriones microcephalus Harlan, Proc. Zool. Soc., 1839, p. 1.
Meriones acadicus Dawson, Edinb. New Philos. Journ., N. S., III, 1856, p. 2.
Zapus hudsonius hardyi Batchelder, Proc. N. Eng. Zool. Club, I, 1899, p. 5.
Zapus hudsonius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 257, fig. 59. Zool. Ser.

HUDSON BAY JUMPING MOUSE.

Type locality. Hudson Bay.

Geogr. Distr. Hudson Bay south to New Jersey; mountains of North Carolina west to Iowa and Missouri, and northwest to Alaska.

a. *Zapus hudsonius ladas* Bangs.

- Zapus hudsonius ladas* Bangs, Proc. N. Eng. Zool. Club, I, 1899, p. 10. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 258. Zool. Ser.

LABRADOR JUMPING MOUSE.

Type locality. Rigoulette, Hamilton Inlet, Labrador.

Geogr. Distr. Eastern Quebec, north to Hamilton Inlet, Labrador.

b. *Zapus hudsonius alascensis* Merriam.

- Zapus hudsonius alascensis* Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 223. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 259. Zool. Ser.

ALASKA JUMPING MOUSE.

Type locality. Yakutat Bay, Alaska.

Geogr. Distr. Yakutat Bay, north to Yukon River. Limits unknown.

c. *Zapus hudsonius americanus* (Barton).

Dipus americanus Barton, Trans. Am. Philos. Soc., iv, 1799, p. 115.

Zapus hudsonius americanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 259. Zoöl. Ser.

CAROLINIAN JUMPING MOUSE.

Type locality. Near Philadelphia, Pennsylvania.

Geogr. Distr. Raleigh, North Carolina, north to southern Connecticut and valley of the lower Hudson.

d. *Zapus hudsonius campestris* Preble.

Zapus hudsonius campestris Preble, N. Am. Faun., No. 15, 1899, p. 20. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 259. Zoöl. Ser.

PRAIRIE JUMPING MOUSE.

Type locality. Bear Lodge Mountains, Crook County, Wyoming.

Geogr. Distr. Great Plains from Manitoba southward to Nebraska and westward to Colorado and Wyoming.

811. *Zapus tenellus* Merriam.

Zapus tenellus Merr., Proc. Biol. Soc. Wash., xi, 1897, p. 103. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 259. Zoöl. Ser.

KAMLOOPS JUMPING MOUSE.

Type locality. Kamloops, British Columbia, Canada.

Geogr. Distr. Known only from the type locality.

812. *Zapus princeps* Allen.

Zapus princeps Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 71. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 260. Zoöl. Ser.

ROCKY MOUNTAIN JUMPING MOUSE.

Type locality. Florida, La Plata County, Colorado.

Geogr. Distr. Rocky Mountain region from northern New Mexico northward to Henry House, Alberta, Canada.

a. *Zapus princeps minor* Preble.

Zapus princeps minor Preble, N. Am. Faun., No. 15, 1899, p. 23. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 260. Zoöl. Ser.

SASKATCHEWAN JUMPING MOUSE.

Type locality. Wingard, near Carlton House, Saskatchewan, Canada.

Geogr. Distr. Plains of Saskatchewan.

b. *Zapus princeps oregonus* Preble.

Zapus princeps oregonus Preble, N. Am. Faun., No. 15, 1899, p.

24. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p.

260. Zoöl. Ser.

BLUE MOUNTAINS JUMPING MOUSE.

Type locality. Elgin, Blue Mountains, Union County, Oregon.

Geogr. Distr. Blue Mountains, Oregon.

813. *Zapus major* Preble.

Zapus major Preble, N. Am. Faun., No. 15, 1899, p. 24. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 260. Zoöl.

Ser.

WARNER MOUNTAIN JUMPING MOUSE.

Type locality. Warner Mountains, Lake County, Oregon.

Geogr. Distr. Known only from the type locality.

814. *Zapus nevadensis* Preble.

Zapus nevadensis Preble, N. Am. Faun., No. 15, 1899, p. 25.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 261.

Zoöl. Ser.

NEVADA JUMPING MOUSE.

Type locality. Ruby Mountains, Elko County, Nevada.

Geogr. Distr. Known only from the type locality.

815. *Zapus trinotatus* Rhoads.

Zapus trinotatus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894,

p. 421. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,

p. 261. Zoöl. Ser.

Zapus imperator Elliot, Pub. Field Columb. Mus., 1, 1899, p. 228.

Zoöl. Ser.

NORTHWEST JUMPING MOUSE.

Type locality. Lulu Island, mouth of the Fraser River, British Columbia.

Geogr. Distr. Coast region of southern British Columbia, Canada; Washington, Oregon west of Cascade Mountains, northern California to Humboldt Bay.

a. *Zapus trinotatus alleni* (Elliot).

Zapus alleni Elliot, Pub. Field Columb. Mus., 1, 1898, p. 212.

Zoöl. Ser.

Zapus trinotatus alleni Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 261. Zoöl. Ser.

ALLEN'S JUMPING MOUSE.

Type locality. Pyramid Peak, Lake Tahoe, Eldorado County, California.

Geogr. Distr. Mount Shasta, southward in the Sierra Nevada to Mammoth, and north fork of Kern River, California.

816. *Zapus montanus* (Merriam).

Zapus trinotatus montanus Merr., Proc. Biol. Soc. Wash., XI, 1897,
p. 104. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 262. Zoöl. Ser.

MOUNTAIN JUMPING MOUSE.

Type locality. Crater Lake, Mount Mazama, Klamath County, Oregon.

Geogr. Distr. Cascade Range in Oregon.

817. *Zapus orarius* Preble.

Zapus orarius Preble, N. Am. Faun., No. 15, 1899, p. 29. Elliot,
Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 262. Zoöl. Ser.

COAST JUMPING MOUSE.

Type locality. Point Reyes, Marin County, California.

Geogr. Distr. Coast of California from Point Reyes, Marin County, north to Mad River, Humboldt County. Limits of range unknown.

818. *Zapus pacificus* Merriam.

Zapus pacificus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 104.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 262.
Zoöl. Ser.

PACIFIC JUMPING MOUSE.

Type locality. Prospect, Rogue River Valley, Jackson County, Oregon.

Geogr. Distr. Interior valleys of southwestern Oregon and northwestern California.

819. *Zapus saltator* Allen.

Zapus saltator Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 3.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 262.
Zoöl. Ser.

STICKEEN JUMPING MOUSE.

Type locality. Telegraph Creek, Stikine River, British Columbia, Canada.

Geogr. Distr. Telegraph Creek, south to mouth of Skeena River and Tschimshian Peninsula. Limits of range unknown.

Subgenus B. *Napæozapus*.

820. *Zapus insignis* Miller.

Meriones labradorius Dawson, Edinb. New Philos. Journ., N. S., III, 1856, p. 2. (nec Kerr.)

Jaculus hudsonius Baird, N. Am. Mamm., 1857, p. 467. (Part.)

Zapus insignis Miller, Amer. Nat., xxv, 1891, p. 742. Elliot, Syn.

N. Am. Mamm., F. C. M. Pub., II, 1901, p. 263, fig. 60. Zoöl. Ser.

WOODLAND JUMPING MOUSE.

Type locality. Restigouche River, New Brunswick, Canada.

Geogr. Distr. Eastern Canada, south to western Maryland.

a. *Zapus insignis roanensis* Preble.

Zapus insignis roanensis Preble, N. Am. Faun., No. 15, 1899, p. 35.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 263.

Zoöl. Ser.

ROAN MOUNTAIN JUMPING MOUSE.

Type locality. Roan Mountain, Mitchell County, North Carolina.

Geogr. Distr. Known only from the type locality.

b. *Zapus insignis abietorum* Preble.

Zapus insignis abietorum Preble, N. Am. Faun., No. 15, 1899,

p. 36. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 264. Zoöl. Ser.

NORTHERN WOODLAND JUMPING MOUSE.

Type locality. Peninsula Harbor, north shore of Lake Superior, Ontario, Canada.

Geogr. Distr. Eastern Canada. Range unknown.

Family VIII. *Octodontidæ*. The Octodonts.

Subfamily I. *Loncherinæ*.

Genus 101. *Loncheres*.

Loncheres Illig., Prodr. Syst. Mamm. et Av., 1811, p. 90. Type

Myoxus chrysurus Zimmermann = *Echinomys cristatus* Desmarest.

Lonchetes Billberg, Syn. Faun. Scandinav., I, 1828, Mamm., Conspectus A.

821. *Loncheres labilis* Bangs.

Loncheres labilis Bangs, Amer. Nat., xxxv, 1901, p. 638. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1,

1904, p. 384, figs. 71, LI. Zoöl. Ser.

GLIDING SPINY RAT.

Type locality. San Miguel Island, Bay of Panama.

Geogr. Distr. Known only from the type locality.

Genus 102. **Proechinomys.**

Proechimys (*sic*) Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 264.

Type Echimys! trinitatis Allen & Chapman.

Echimys (sic) Geoff. St. Hilare, Ann. Scien. Nat., 2me Sér., x, 1838, p. 125. (nec G. Cuvier, 1809.)

822. Proechinomys semispinosus (Tomes).

Echimys! semispinosus Tomes, Proc. Zool. Soc., 1860, p. 265.

Proechinomys semispinosus Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 386. Zool. Ser.

SHORT-SPINED RAT.

Type locality. Ecuador.

Geogr. Distr. Nicaragua, south to Ecuador.

823. Proechinomys centralis (Thomas).

Echinomys centralis Thomas, Ann. Mag. Nat. Hist., 6th Ser., XVIII, 1896, p. 312.

Proechinomys centralis Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 386, fig. 72. Zool. Ser.

NICARAGUAN SPINY RAT.

Type locality. San Emilio, north end of Lake Nicaragua, Nicaragua.

Geogr. Distr. Costa Rica, Nicaragua, Central America.

a. Proechinomys centralis chiriquinus Thomas.

Proechimys! centralis chiriquinus Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 220.

Proechinomys centralis chiriquinus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 387. Zool. Ser.

BOGAVA SPINY RAT.

Type locality. Bogava, Chiriqui, Panama. Altitude, 800 feet.

Geogr. Distr. Panama, Central America.

b. Proechinomys centralis panamensis Thomas.

Proechimys! centralis panamensis Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 220.

Proechinomys centralis panamensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 387. Zool. Ser.

PANAMA SPINY RAT.

Type locality. Savanna near City of Panama, Panama.

Geogr. Distr. Panama, Central America.

824. *Proechinomys burrus* Bangs.

Proechimys! burrus Bangs, Amer. Nat., xxxv, 1901, p. 640.

Proechinomys burrus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 388. Zool. Ser.

SAN MIGUEL SPINY RAT.

Type locality. San Miguel Island, Bay of Panama.

Geogr. Distr. Known only from the type locality.

Subfamily II. *Capromyinae*.Genus 103. *Capromys*.

Capromys Desmarest, Mém. Soc. Hist. Nat. Paris, I, 1822, p. 43.

Type *Capromys fournieri* Desmarest = *Isodon pilorides* Say.

Geocapromys Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1901,
p. 314.

Procapromys Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1901,
p. 322.

Subgenus A. *Capromys*.825. *Capromys pilorides* (Say).

Isodon pilorides Say, Journ. Acad. Nat. Scien. Phil., II, 1822, p. 333,
fig.

Capromys fournieri Desm., Mém. Soc. Hist. Nat. Paris, 1822, p. 43,
pl. I.

Capromys quemi Fisch., Syn. Mamm., 1829, p. 312.

Capromys pilorides Fisch., Syn. Mamm., 1830, p. 313. Elliot,
Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I,
1904, p. 390, figs. 73, LII. Zool. Ser.

HAIRY HUTIA.

Type locality. "South America, or one of the West Indian
Islands." Cuba?

Geogr. Distr. Cuba.

826. *Capromys melanurus* Poey.

Capromys melanurus Poey, Monatsb. K. Preuss. Akad. Wiss.
Berl., 1864, p. 384. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 391. Zool. Ser.

BLACK-TAILED HUTIA.

Type locality. Manzanillo, Cuba.

Geogr. Distr. Island of Cuba.

827. *Capromys prehensilis* Poeppig.

Capromys prehensilis Poeppig, Journ. Acad. Nat. Scien. Phil., 1824, p. 11. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 391. Zoöl. Ser.

PREHENSILE-TAILED HUTIA.

Type locality. Southern Cuba.

Geogr. Distr. Island of Cuba.

a. *Capromys prehensilis gundlachi* Chapman.

Capromys prehensilis gundlachi Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1901, p. 317. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 392. Zoöl. Ser.

GUNDLACH'S HUTIA.

Type locality. Nueva Gerona, Isle of Pines, near Cuba.

Geogr. Distr. Known only from the type locality.

828. *Capromys elegans* Latorre.

Capromys elegans Latorre, Bol. Soc. Españ. Hist. Nat. Madrid, 1, 1901, p. 372. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 392. Zoöl. Ser.

LANCEOLATE-SPOT HUTIA.

Type locality. Cuba?

Geogr. Distr. Range unknown.

Subgenus B. *Geocapromys*.829. *Capromys browni* Fischer.

Capromys brownii Fisch., Syn. Mamm., Addend., 1830, p. 389. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 393, fig. 74. Zoöl. Ser.

SHORT-TAILED HUTIA.

Type locality. Jamaica.

Geogr. Distr. Known only from the type locality.

830. *Capromys thoracatus* (True).

Capromys brachyurus thoracatus True, Proc. U. S. Nat. Mus., 1888, p. 469. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 394. Zoöl. Ser.

WHITE-BANDED HUTIA.

Type locality. Little Swan Island, Gulf of Honduras.

Geogr. Distr. Known from the type locality only.

831. Capromys ingrahami Allen.

Capromys ingrahami Allen, Bull. Am. Mus. Nat. Hist., 1891, p. 329. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV., Pt. 1, 1904, p. 394. Zoöl. Ser.

INGRAHAM'S HUTIA.

Type locality. Plana Key, Bahama Islands.

Geogr. Distr. Bahama Islands.

Genus 104. **Plagiodontia.**

Plagiodontia F. Cuv., Ann. Scien. Nat., 2me Sér., VI, 1836, p. 347. Zoöl. *Type Plagiodontia aedium* F. Cuvier.

832. Plagiodontia aedium F. Cuvier.

Plagiodontia aedium F. Cuvier, Ann. Scien. Nat., 2me Sér., VI, 1836, p. 347. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 396, figs. 75, LIII. Zoöl. Ser.

HAITIAN HUTIA.

Type locality. Island of Haiti.

Geogr. Distr. Island of Haiti.

Family IX. **Erethizontidæ.**Subfamily I. **Erethizontinæ.**Genus 105. **Erethizon. Long-spined Porcupines.**

Erethizon F. Cuv., Mém. Mus. Hist. Nat. Paris, IX, 1822, p. 436.

Type Hystrix dorsatus Linnæus.

Echinothrix Brookes, Cat. Anat. & Zoöl. Mus. J. Brookes, Lond., 1828, p. 54.

Echinoprocta Gray, Proc. Zoöl. Soc., 1865, pp. 321-322, desc.

833. Erethizon epixanthum Brandt.

Erethizon epixanthus Brandt, Mém. Acad. Imp. Scien. St. Pétersb., 6th Ser., 1835, p. 390, pls. 1, 9. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 265. Zoöl. Ser.

Erethizon epixanthum Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 397, figs. 76, LIV. Zoöl. Ser.

WESTERN PORCUPINE.

Type locality. California ? Unalaska ?

Geogr. Distr. State of Sonora, Mexico, into New Mexico, eastward to Missouri, west to the Pacific and north to Alaska and the limit of trees.

a. Erethizon epixanthum couesi Mearns.

Erethizon epixanthus couesi Mearns, Proc. U. S. Nat. Mus., 1897, p. 723. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 265. Zoöl. Ser.

COUES' TREE PORCUPINE.

Type locality. Fort Whipple, Yavapai County, Arizona.

Geogr. Distr. Arizona and New Mexico.

b. Erethizon epixanthum myops Merriam.

Erethizon epixanthus myops Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 27. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 266. Zoöl. Ser.

ALASKA PORCUPINE.

Type locality. Portage Bay, Alaska Peninsula, Alaska.

Geogr. Distr. Range unknown.

c. Erethizon epixanthum nigrescens Allen.

Erethizon epixanthus! nigrescens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 558.

DUSKY PORCUPINE.

Type locality. Shesley River, British Columbia, Canada.

Genl. Char. Skull markedly depressed at fronto-parietal region; lateral border of interorbital region forming a high obtuse knob.

Color. Front and sides of head, black, lightest on the nape; sides of lower back and thighs with tips of hairs yellowish; underparts sooty black; long hairs on top of head and nape broadly tipped with pale yellow; on shoulders and lower back the long hairs are mostly black; long hairs on thighs and sides of tail broadly tipped with yellowish white; spines white tipped with black except on the shoulders where they are plumbeous at tips.

Measurements. Total length, 740; tail vertebræ, 210; hind foot, 90; ear, 27. Skull: total length, 105; basal length, 99; zygomatic breadth, 67; mastoid breadth, 42; upper molar series, 26.

834. Erethizon dorsatum (Linnæus).

Hystrix dorsata Linn., Syst. Nat., 1, 1758, p. 57; 1, 1766, p. 76.

Hystrix pilosus Richards., Faun. Bor. Amer., Mamm., 1, 1829, p. 214. (nec Peale.)

Hystrix hudsonius De Kay, N. Y. Zoöl., 1, 1842, p. 27, pl. xxv, fig. 1, pl. viii, 2, a. b. c.

Erethizon dorsatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 264, pl. XXIV. Zoöl. Ser.

CANADIAN TREE PORCUPINE.

Type locality. Eastern Canada.

Geogr. Distr. Canada, west to the Saskatchewan Plains, south to central Maine and northern New Hampshire and west of the Connecticut River nearly to the border of Massachusetts. Formerly it extended along the Alleghanies through Pennsylvania into Virginia and possibly west to Kentucky. North in Canada it goes to the Barren Grounds, and the limit of trees.

a. *Erethizon dorsatum picinum* Bangs.

Erethizon dorsatus picinus Bangs, Proc. N. E. Zoöl. Club, II, 1900, p. 37. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 431. Zoöl. Ser.

LABRADOR PORCUPINE.

Type locality. Lance au Loop, Strait of Belle Isle, Labrador.

Geogr. Distr. Labrador. Range unknown.

Genus 106. **Coendu.**

Coendou Lacép., Disc. d'ouvert. et de cloture du Cours Hist. Nat., Suppl., 1799, p. 11. *Type Hystrix prehensilis* Linnæus.

Eucrius Fisch., Mém. Soc. Imp. Mosc., v, 1817, pp. 372, 411.

Sinitheres (sic) F. Cuv., Mém. Mus. Hist. Nat. Paris, IX, 1822, p. 433.

Laboura Billb., Syn. Faun. Scandinav., Mamm., I, 1828, Consp. A.

Cercolabes Brandt, Mamm. Exot. Nov., in Mém. Acad. Imp. St.

Pétersb., Sér. 3, III, 1835, p. 55.

835. Coendu pallidum (Waterhouse).

Cercolabes pallidus Waterh., Nat. Hist. Mamm., II, 1848, p. 434.

Coendu pallidum Elliot, Mamm. Middle Amer. & W. Indies, F.

C. M. Pub., IV, Pt. 1, 1904, p. 401. Zoöl. Ser.

LIGHT-COLORED PORCUPINE.

Type locality. "West Indies."

Geogr. Distr. Undetermined.

836. Coendu rothschildi Thomas.

Coendou rothschildi Thomas, Ann. Mag. Nat. Hist., 7th Ser., x, 1902, p. 169.

Coendu rothschildi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 401. Zoöl. Ser.

ROTHSCHILD'S TREE PORCUPINE.

Type locality. Sevilla Island, off Chiriqui, Panama.

Geogr. Distr. Known only from the type locality.

837. *Coendu mexicanum* (Kerr).¹

Hystrix mexicana Kerr, Anim. Kingd., 1792, p. 214.

Hystrix novæ-hispaniæ Briss., Règn. Anim., 1756, p. 127.

Hystrix prehensilis Schreb., Säugth., IV, 1792, p. 603.

Coendu mexicanum Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. 1, 1904, p. 402, figs. 77, LV. Zoöl. Ser.

PREHENSILE-TAILED PORCUPINE.

Type locality. Mountains of Mexico.

Geogr. Distr. Mirador, State of Vera Cruz, Mexico, south to Costa Rica, Central America.

a. *Coendu mexicanum yucatanicæ* Thomas.

Coendou mexicanum yucatanicæ Thomas, Ann. Mag. Nat. Hist., 7th Ser., x, 1902, p. 249.

Coendu mexicanum yucatanicæ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 402. Zoöl. Ser.

YUCATAN TREE PORCUPINE.

Type locality. Izamal, Yucatan.

Geogr. Distr. Yucatan. Range unknown.

838. *Coendu lænatum* Thomas.

Coendou lænatus Thomas, Ann. Mag. Nat. Hist., 7th Ser., xi, 1903, p. 381.

Coendu lænatum Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 402. Zoöl. Ser.

CHIRIQUI PORCUPINE.

Type locality. Boquete, Chiriqui, Panama. Altitude, 5,000 feet.

Geogr. Distr. Panama. Range unknown.

Family X. **Agoutidæ. Agoutis, Paca.**Genus 107. **Dasyprocta. Agoutis.**

Dasyprocta Illig., Prodr. Syst. Mamm. et Av., 1811, p. 93. Type undetermined.

Cutia Liais, Climats, Géol., Faun., Geog. et Bot. Brésil, 1872, p. 534.

Myoprocta Thomas, Ann. Mag. Nat. Hist., 7th Ser., xii, 1903, p. 464.

839. *Dasyprocta punctata* Gray.

Dasyprocta punctata Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 264. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 405. Zoöl. Ser.

SPOTTED AGOUTI. *Cotusa* in Guatemala.

Type locality. "South America."

Geogr. Distr. Guatemala and Costa Rica, Central America.

840. *Dasyprocta ruatanica* Thomas.

Dasyprocta ruatanica Thomas, Ann. Mag. Nat. Hist., 7th Ser., VIII, 1901, p. 272. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 405. Zoöl. Ser.

RUATAN ISLAND AGOUTI.

Type locality. Island of Ruatan, Bay of Honduras.

Geogr. Distr. Known only from the type locality.

841. *Dasyprocta mexicana* Saussure.

Dasyprocta mexicana Sauss., Rev. Mag. Zoöl., 2me Sér., XII, 1860, p. 53. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 405, fig. 78. Zoöl. Ser.

MEXICAN AGOUTI.

Type locality. "Hot zone of Mexico." State of Vera Cruz?

Geogr. Distr. Range unknown.

842. *Dasyprocta callida* Bangs.

Dasyprocta callida Bangs, Amer. Nat., xxxv, 1901, p. 635. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 406. Zoöl. Ser.

CUNNING AGOUTI.

Type locality. San Miguel Island, Bay of Panama.

Geogr. Distr. Known only from the type locality.

843. *Dasyprocta isthmica* Alston.

Dasyprocta isthmica Alston, Proc. Zoöl. Soc., 1876, p. 347. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 407, fig. LVI. Zoöl. Ser.

ISTHMIAN AGOUTI.

Type locality. Colon, Colombia.

Geogr. Distr. Unknown; probably Costa Rica to Colombia.

844. *Dasyprocta coibæ* Thomas.

Dasyprocta coibæ Thomas, Novitat. Zool., IX, 1902, p. 136. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 407. Zoöl. Ser.

COIBA AGOUTI.

Type locality. Coiba Island, West Coast of Panama.

Geogr. Distr. Known only from the type locality.

845. *Dasyprocta cristata* Desmarest.

Dasyprocta cristata Desm., Nouv. Dict. Hist. Nat., I, 1816, p. 213.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 407. Zoöl. Ser.

Dasyprocta antillensis Sclat., Proc. Zoöl. Soc., 1874, p. 666.

CRESTED AGOUTI.

Type locality. "Surinam." Erroneous.

Geogr. Distr. Islands of St. Vincent, St. Lucia, and St. Thomas, West Indies.

Genus 108. *Agouti*. *Paca*.

Agouti Lacép., Tableau des Divis. Sous-divis. Ordres et Genres Mamm., Suppl. Disc. d'ouvert et de clôture du Cours d'Hist. Nat., etc., 1799, p. 11. Type *Mus paca* Linnæus.

Coelogenus (sic) F. Cuv., Ann. Mus. Hist. Nat. Paris, x, 1807, p. 203.

Paca Fisch., Zoogn., III, 1814, p. 85.

Osteopera Harlan, Faun. Amer., 1825, p. 126.

Genyscælus Liais, Climats, Géol., Faun., Geogr. et Bot. Brésil, 1872, p. 537.

Agouti paca virgata Bangs.

Agouti paca virgatus Bangs, Bull. Mus. Comp. Zoöl., xxxix, 1902, p. 47.

Agouti paca virgata Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 408, pls. xxxviii, xxxix, and fig. LVII. Zoöl. Ser.

CENTRAL AMERICAN PACA.

Type locality. Divala, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

Family XI. *Ochotonidæ*.Genus 109. *Ochotona*. *Pikas*, *Chief Hares*.

Ochotona Link, Zool. Beytr. Nat., I, Pt. II, 1795, p. 74. Type undetermined.

Lagomys Storr, Prodr. Meth. Mamm., 1780, pp. 39-40, tab. B.

Ogotoma Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 220.

846. Ochotona princeps (Richardson).

Lepus princeps Richards., Zoöl. Journ., III, 1828, p. 520.

Ochotona princeps Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 267, fig. 61. Zoöl. Ser.

CHIEF PIKA.

Type locality. "Stony places in the Rocky Mountains"; probably in northern British Columbia, Canada.

Geogr. Distr. Rocky Mountains in British Columbia, to the south branch of the Mackenzie River.

847. Ochotona schisticeps (Merriam).

Lagomys schisticeps Merr., N. Am. Faun., No. 2, 1889, p. 11.

Ochotona schisticeps Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 267. Zoöl. Ser.

GRAY-HEADED PIKA.

Type locality. Donner, Placer County, California.

Geogr. Distr. Sierra Nevada Mountains, California.

848. Ochotona cinnamomea Allen.

Ochotona cinnamomea Allen, Bull. Brookl. Inst. Arts & Scien., I, No. 5, 1905, p. 121.

CINNAMON CHIEF HARE.

Type locality. Briggs Meadows, Beaver Range, Beaver County, Utah. Altitude, 11,000 feet.

Geogr. Distr. Unknown.

Genl. Char. Size small. Skull similar to that of *O. schisticeps*, less convex, more depressed; audital bullæ smaller.

Color. Above pale cinnamon rufous, varied with black on dorsal region; sides dull cinnamon; top of head and nape gray tinged with buff; hairs tipped with black; under parts grayish washed with buff; ears blackish externally, narrowly edged with white; inside grayish dusky; fore feet above buffy gray, soles silvery gray; hind feet soles black.

Measurements. (Dried skin.) Hind foot, 27; ear, 23; none other given.

849. Ochotona collaris (Nelson).

Lagomys collaris Nels., Proc. Biol. Soc. Wash., VIII, 1893, p. 117.

Ochotona collaris Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 268. Zoöl. Ser.

COLLARED PIKA.

Type locality. Near head of Tanana River, 200 miles south of Fort Yukón, Alaska.

Geogr. Distr. Mountains south of Fort Yukon from the head of Tanana River to the Chigmit Mountains, near the head of Bristol Bay, Alaska.

850. *Ochotona cuppes* Bangs.

Ochotona cuppes Bangs, Proc. N. Eng. Zool. Club, 1, 1899, p. 40.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 268.
 Zool. Ser.

DAINTY PIKA.

Type locality. Monishee Divide, Gold Range, British Columbia, Canada. Altitude, 4,000 feet.

Geogr. Distr. Gold Range, British Columbia, Canada.

851. *Ochotona saxatilis* Bangs.

Ochotona saxatilis Bangs, Proc. N. Eng. Zool. Club, 1, 1899, p. 41.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 268.
 Zool. Ser.

ROCK PIKA.

Type locality. Snowy Range, Montgomery, Park County, Colorado.

Geogr. Distr. Snowy Range, Colorado.

852. *Ochotona minimus* (Lord).

Lagomys minimus Lord, Proc. Zool. Soc., 1863, p. 98.
Ochotona minimus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 11, 1901, p. 269. Zool. Ser.

LEAST PIKA.

Type locality. Ptarmigan Hill, Cascade Range, British Columbia, Canada. Altitude, 7,000 feet.

Geogr. Distr. Cascade Range, British Columbia, Canada. Limits unknown.

Family XII. Leporidae. Hares, Rabbits.

Genus 110. Romerolagus.

Romerolagus Merr., Proc. Biol. Soc. Wash., x, 1896, p. 173. Type
Romerolagus nelsoni Merriam.

853. *Romerolagus nelsoni* Merriam.

Romerolagus nelsoni Merr., Proc. Biol. Soc. Wash., x, 1896, p.
 173. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
 Pub., IV, Pt. 1, 1904, p. 412, fig. 79. Zool. Ser.

NELSON'S HARE.

Type locality. West slope of Mt. Popocatepetl, State of Mexico, Mexico. Altitude, 10,000 to 12,000 feet.

Geogr. Distr. Mt. Popocatepetl and Mt. Iztaccihuatl, State of Mexico, Mexico.

Genus III. **Lepus.**

Lepus Linn., Syst. Nat., I, 1758, p. 57; I, 1766, p. 77. Type *Lepus timidus* Linnæus.

Hydrolagus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 221.

Sylvilagus Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 222.

Tapeti Gray, Ann. Mag. Nat. Hist., 3d Ser., xx, 1867, p. 224.

Macrotolagus Mearns, Science, I, 1895, p. 698.

Microlagus Trouess., Cat. Mamm. vivent. quam fossil., 1897, fasc. III, p. 660.

Limnolagus Mearns, Science, N. S., v, 1897, p. 393.

Brachylagus Miller, Proc. Biol. Soc. Wash., XIII, 1900, p. 157.

Subgenus A. **Limnolagus.** Swamp Hares.**854. Lepus aquaticus** Bachman.

Lepus aquaticus Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 319. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 277. Zool. Ser.

GREAT SWAMP HARE.

Type locality. Alabama.

Geogr. Distr. Gulf states, from Alabama to Texas, and northward to southern Illinois in the interior about Mound City and Cairo; up the Ohio to the Wabash and "on the Mississippi to Cape Girardeau, and possibly higher where swamps extend."

a. *Lepus aquaticus attwateri* Allen.

Lepus aquaticus attwateri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 327. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 278. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 414, pl. XL. Zool. Ser.

ATTWATER'S SWAMP HARE.

Type locality. Medina River, eighteen miles south of San Antonio, Bexar County, Texas.

Geogr. Distr. Yucatan, Mexico, to southeastern Texas.

855. *Lepus palustris* Bachman.

Lepus palustris Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 194. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 279. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 415. Zoöl. Ser.

EASTERN SWAMP HARE. *Conejo* in Mexico.

Type locality. Eastern South Carolina.

Geogr. Distr. North Carolina to Florida and Texas and south to Yucatan, Mexico.

a. *Lepus palustris paludicola* (Miller & Bangs).

Lepus paludicola Miller & Bangs, Proc. Biol. Soc. Wash., IX, 1894, p. 105.

Lepus palustris paludicola Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 279. Zoöl. Ser.

FLORIDA SWAMP HARE.

Type locality. Fort Island, near Crystal River, Citrus County, Florida.

Geogr. Distr. Southern Florida.

856. *Lepus telmalemonus* Elliot.

Lepus telmalemonus Elliot, Pub. Field Columb. Mus., I, 1899, p. 285. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 278, pl. xxv. Zoöl. Ser.

WANDERING SWAMP HARE.

Type locality. Washita River, near Dougherty, Chickasaw Nation, Indian Territory.

Geogr. Distr. Indian Territory. Range unknown.

857. *Lepus truei* Allen.

Lepus truei Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 192.

Lepus truei Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 415. Zoöl. Ser.

TRUE'S SWAMP HARE.

Type locality. Mirador, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

Subgenus B. **Sylvilagus*. Forest Hares.

858. *Lepus insonus* Nelson.

Lepus insonus Nelson, Proc. Biol. Soc. Wash., XVII, 1904, p. 103.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 743. Zoöl. Ser.

**Sylva*—more properly written *silva*.

OMILTEME COTTON-TAIL.

Type locality. Omilteme, State of Guerrero, Mexico.

Geogr. Distr. Known only from the type locality.

859. *Lepus floridanus* (Allen).

Lepus sylvaticus floridanus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 160.

Lepus floridanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 280, pl. xxvi. Zoöl. Ser.

FLORIDA COTTON-TAIL.

Type locality. Sebastian River, Brevard County, Florida.

Geogr. Distr. North Carolina to Florida, west to Louisiana.

a. *Lepus floridanus mallurus* (Thomas).

Lepus sylvaticus Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 403. (nec Nillson.)

Lepus nuttalli mallurus Thomas, Ann. Mag. Nat. Hist., 7th Ser., 11, 1898, p. 320.

Lepus floridanus mallurus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 280. Zoöl. Ser.

COMMON COTTON-TAIL.

Type locality. Raleigh, Wake County, North Carolina.

Geogr. Distr. Southern Maine, along the coast to Florida and the Gulf States, west to eastern Kansas, Nebraska, and the Indian Territory. In the states bordering on the Mississippi it grades into *L. nuttalli* and in Arizona into *L. arizonæ*. In the interior its range is limited apparently by the northern boundary of the United States.

b. *Lepus floridanus mearnsi* Allen.

Lepus sylvaticus mearnsi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 171.

Lepus floridanus mearnsi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 280. Zoöl. Ser.

MEARNS' COTTON-TAIL.

Type locality. Fort Snelling, Hennepin County, Minnesota.

Geogr. Distr. Iowa, Wisconsin, and Minnesota.

c. *Lepus floridanus transitionalis* (Bangs).

Lepus sylvaticus transitionalis Bangs, Proc. Bost. Soc. Nat. Hist., 1895, p. 405.

Lepus floridanus transitionalis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 281. Zoöl. Ser.

BANGS' COTTON-TAIL.

Type locality. Liberty Hill, New London County, Connecticut.

Geogr. Distr. East side of lower Hudson River, New York, along the Alleghanies to West Virginia, north to southern New Hampshire, and west to Hudson River.

d. *Lepus floridanus alacer* (Bangs).

Lepus sylvaticus alacer Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 136.

Lepus floridanus alacer Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 282. Zoöl. Ser.

LIVELY COTTON-TAIL.

Type locality. Stilwell, Boston Mountains, Indian Territory.

Geogr. Distr. Missouri, south to Indian and Oklahoma Territories.

e. *Lepus floridanus chapmani* (Allen).

Lepus sylvaticus bachmani Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 170. (nec Waterhouse.)

Lepus floridanus chapmani Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 12. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 282. Zoöl. Ser.

CHAPMAN'S COTTON-TAIL.

Type locality. Corpus Christi, Nueces County, Texas.

Geogr. Distr. Texas; common in chapparal regions south of Bexar County.

f. *Lepus floridanus connectens* Nelson.

Lepus floridanus connectens Nelson, Proc. Biol. Soc. Wash., xvii, 1904, p. 105. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 743. Zoöl. Ser.

ALTA MIRA COTTON-TAIL.

Type locality. Chichicaxtle, State of Vera Cruz, Mexico.

Geogr. Distr. Tropical parts of eastern Mexico from southern Tamaulipas, throughout the coast lowlands of the Papaloapam River in central Vera Cruz and along the east slope of the Cordillera of eastern San Luis Potosi, eastern Puebla, and eastern Oaxaca, and south to Mt. Zempoaltepec.

g. *Lepus floridanus simplicianus* (Miller).

Lepus simplicianus Miller, Proc. Biol. Soc. Wash., xv, 1902, p. 81.

ALLIED COTTON-TAIL.

Type locality. Brownsville, Cameron County, Texas.

Geogr. Distr. Texas. Range undetermined.

Genl. Char. Like *L. f. chapmani*; "fur shorter, grizzle of head and anterior portion of body much less coarse, owing to the reduced length of the pale ring on each hair."

Color. Above finely grizzled with black and cream buff; sides and rump paler; head and ears clear yellowish gray; nape patch rufous; under parts, tail and feet like *L. f. chapmani*, but with rufous tints duller.

Measurements. Total length, 420; tail vertebræ, 68; hind foot, 91; ear, 90. (Skin.) From fresh specimen. Total length, 416; tail vertebræ, 68; hind foot, 87; ear, 76.

h. Lepus floridanus caniclunis Miller.

Lepus floridanus caniclunis Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 388. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 283. Zoöl. Ser.

HOARY-RUMPED COTTON-TAIL.

Type locality. Fort Clark, Kinney County, Texas.

Geogr. Distr. Southwestern Texas. Range unknown.

i. Lepus floridanus aztecus (Allen).

Lepus sylvaticus aztecus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 188.

Lepus floridanus aztecus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 418. Zoöl. Ser.

TEHUANTEPEC COTTON-TAIL.

Type locality. City of Tehuantepec, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico.

j. Lepus floridanus chiapensis Nelson.

Lepus floridanus chiapensis Nelson, Proc. Biol. Soc. Wash., XVII, 1904, p. 106. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 744. Zoöl. Ser.

CHIAPAS COTTON-TAIL.

Type locality. San Cristobal, State of Chiapas, Mexico.

Geogr. Distr. Interior of the State of Chiapas and Guatemala, from 2,500 to 10,000 feet altitude.

k. Lepus floridanus subcinctus Miller.

Lepus floridanus subcinctus Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 386. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 417, fig. 80. Zoöl. Ser.

MICHOACAN COTTON-TAIL.

Type locality. Hacienda El Molino, near Negrete, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, Mexico. Range unknown.

l. Lepus floridanus persultator Elliot.

Lepus floridanus persultator Elliot, Pub. Field Columb. Mus., III, 1903, p. 147. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 418. Zoöl. Ser.

PUEBLA COTTON-TAIL.

Type locality. Puebla, State of Puebla, Mexico.

Geogr. Distr. State of Puebla, Mexico. Range unknown.

m. Lepus floridanus yucatanicus Miller.

Lepus floridanus yucatanicus Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 384. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 419. Zoöl. Ser.

YUCATAN COTTON-TAIL.

Type locality. Merida, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico. Range unknown.

n. Lepus floridanus holzneri (Mearns).

Lepus sylvaticus holzneri Mearns, Proc. U. S. Nat. Mus., 1896, p. 554.

Lepus floridanus rigidus Mearns, Proc. U. S. Nat. Mus., 1896, p. 555. (Footnote.)

Lepus holzneri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 284. Zoöl. Ser.

Lepus durangæ Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 609. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 424, Index, p. XI. Zoöl. Ser.

Lepus floridanus holzneri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 419. Zoöl. Ser.

HOLZNER'S COTTON-TAIL.

Type locality. Near summit of Huachuca Mountains, southern Arizona. Douglas Spruce zone.

Geogr. Distr. Southern Arizona and northern New Mexico to the States of Sonora, Chihuahua, and Durango in northern Mexico.

860. *Lepus auduboni* Baird.

Lepus auduboni Baird, N. Am. Mamm., 1857, p. 608, pl. 58, fig.

2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 283. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 422. Zoöl. Ser.

AUDUBON'S COTTON-TAIL.

Type locality. San Francisco, California.

Geogr. Distr. Coast of California from San Francisco to San Diego.

861. *Lepus sanctidiegi* (Miller).

Lepus floridanus sanctidiegi Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 389.

Lepus auduboni sanctidiegi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 283. Zool. Ser.

Lepus sanctidiegi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 422. Zool. Ser.

SAN DIEGO COTTON-TAIL.

Type locality. Mexican boundary line, Monument No. 258, shore of Pacific Ocean, San Diego County, California.

Geogr. Distr. Northern Mexico to southwestern California.

862. *Lepus laticinctus* Elliot.

Lepus laticinctus Elliot, Pub. Field Columb. Mus., III, 1903, p. 254. Zool. Ser.

BROAD-BANDED COTTON-TAIL.

Type locality. Oro Grande, Mohave Desert, San Bernardino County, California.

Geogr. Distr. Range undetermined.

Genl. Char. Pelage pale; dark band in front of thigh; soles of feet bister; nasals short.

Color. Upper part of head and dorsal region pinkish buff, the black bases of the hairs showing, giving these parts a streaked appearance of black and pinkish buff; nape tawny ochraceous; rump French gray, darkest in the middle; sides cream buff; broad band in front of thighs like dorsal region; sides of head mixed buff and black; orbital ring pale buff; pectoral band buff; lips, throat, and rest of under parts, under part of fore legs, and upper part of hind legs and feet white; some white on fore feet about toes; soles of all feet bister; tail above blackish, the hairs tipped with buff, beneath white; ears externally mixed buff and black, with the edges white; internally lead color, nearly naked.

Measurements. Total length, 395; tail vertebræ, 62; hind foot, 88; ear, 79. Skull: total length, 70; Hensel, 52; interorbital width, 19; length of nasals, 20; lateral length of nasals, 29; width of nasals posteriorly, 14; anteriorly, 9; palatal length, 25; length of upper tooth row, 11; length of mandible, 54; length of lower tooth row, alveolar border, 13.

a. Lepus laticinctus rufipes Elliot.

Lepus laticinctus rufipes Elliot, Pub. Field Columb. Mus., III, 1903, p. 254. Zool. Ser.

RUSSET-FOOTED COTTON-TAIL.

Type locality. Furnace Creek, Death Valley, Inyo County, California.

Geogr. Distr. Death Valley, Inyo County, California. Range undetermined.

Genl. Char. Similar to *L. laticinctus*, but paler and smaller; soles of feet russet; ear shorter.

Color. Upper parts buffy white, base of fur lead color, then pale brown and hairs tipped with white; nape buff, darkest on lower part; top of head like back; sides grayish white; faint brown stripes in front of thighs; rump pale gray; upper part of fore legs, lower part of shoulders and thighs and soles of feet russet; pectoral band pale buff; entire under parts and upper surface of hind feet white; base of fur plumbeous; ears mixed buff and black, edges white; tail above similar to rump, beneath white.

Measurements. Total length, 355; tail vertebræ, 59; hind foot, 85; ear, 74. Skull: total length, 66; Hensel, 50; zygomatic width, 32; interorbital width, 16; median length of nasals, 15; lateral length of nasals, 25; anterior width of nasals, 7; posterior width, 12; palatal length, 24; length of upper tooth row, 11.5; length of lower tooth row, 10.

b. Lepus laticinctus perplicatus Elliot.

Lepus laticinctus perplicatus Elliot, Pub. Field Columb. Mus., III, 1903, p. 255. Zoöl. Ser.

MIXED COTTON-TAIL.

Type locality. Hannopee Cañon, Panamint Mountains, Inyo County, California. Altitude, 7,500 feet.

Geogr. Distr. Panamint, Coso and Inyo Mountains, Inyo County, California.

Genl. Char. Similar to *L. laticinctus* and *L. l. rufipes*, but smaller than the former and larger than the latter, with the soles of the feet Prout's brown. Ears shorter in proportion to the other dimensions.

Color. Upper parts mixed black and buff; rump dark gray, hairs tipped with white; upper part of fore legs vinaceous cinnamon; soles of feet Prout's brown; pectoral band dark buff; throat whitish plumbeous; rest of under parts white.

Measurements. Total length, 380; tail vertebræ, 69; hind foot, 98; ear, 73. Skull: total length, 64.5; Hensel, 49; zygomatic width, 33; interorbital width, 16; median length of nasals, 21; anterior width, 11; palatal length, 23; length of upper tooth row, 8; of lower tooth row, 9.

863. *Lepus veræcrucis* Thomas.

Lepus veræcrucis Thomas, Proc. Zoöl. Soc., 1890, p. 74, pl. VII.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. I, 1904, p. 420. Zoöl. Ser.

VERA CRUZ COTTON-TAIL.

Type locality. Las Vigas, Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

a. *Lepus veracrucis pacificus* Nelson.

Lepus veracrucis pacificus Nelson, Proc. Biol. Soc. Wash., xvii, 1904, p. 104.

Lepus pacificus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. II, 1904, Append., p. 744. Zoöl. Ser.

ACAPULCO COTTON-TAIL.

Type locality. Acapulco, State of Guerrero, Mexico.

Geogr. Distr. Pacific coast region of State of Guerrero and adjacent part of the State of Oaxaca, Mexico.

864. *Lepus russatus* Allen.

Lepus russatus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904,

p. 31. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. I, 1904, p. 420. Zoöl. Ser.

RUSSET COTTON-TAIL.

Type locality. Pasa Nueva, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

865. *Lepus parvulus* Allen.

Lepus parvulus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904,

p. 134. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. I, 1904, p. 421. Zoöl. Ser.

LITTLE COTTON-TAIL.

Type locality. Apam, southern part of the State of Hidalgo, Mexico.

Geogr. Distr. State of Hidalgo, Mexico. Range unknown.

866. *Lepus insolitus* Allen.

Lepus insolitus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p.

189. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., iv, Pt. I, 1904, p. 421. Zoöl. Ser.

PLAINS COTTON-TAIL.

Type locality. Plains of Colima, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico.

867. *Lepus nuttalli* Bachman.

Lepus nuttalli Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p.

345, pl. 22. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,

1901, p. 284. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., iv, Pt. I, 1904, p. 425. Zoöl. Ser.

NUTTALL'S COTTON-TAIL.

Type locality. Plains near the junction of the Snake and Columbia Rivers, Washington.

Geogr. Distr. From the 49th parallel south to Texas and the State of Sonora, Mexico, and west through the Sierra Nevada to Oregon and Washington.

868. *Lepus baileyi* Merriam.

Lepus baileyi Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 148.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 284.

Zoöl. Ser.

BAILEY'S COTTON-TAIL.

Type locality. Spring Creek, east side of Bighorn Basin, Bighorn County, Wyoming.

Geogr. Distr. Bighorn Basin in Montana, across the Owl Creek Mountains into Wind River Basin, and east into northeastern Wyoming. Exact range not determined.

869. *Lepus grangeri* (Allen).

Lepus sylvaticus grangeri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 264.

Lepus grangeri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1896, p. 246. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 285. Zoöl. Ser.

GRANGER'S COTTON-TAIL.

Type locality. Hill City, Black Hills, Custer County, South Dakota.

Geogr. Distr. Mountains of South Dakota. Range unknown.

870. *Lepus arizonæ* (Allen).

Lepus sylvaticus var. *arizonæ* Allen, N. Am. Rod., 1877, p. 332.

Lepus arizonæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 285. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 423. Zoöl. Ser.

ARIZONA COTTON-TAIL.

Type locality. Beal's Spring, fifty miles west of Fort Whipple, Yavapai County, Arizona.

Geogr. Distr. Deserts of Arizona and the Chiricahua and Huachuca Mountains (but not to the White Mountains), up to 8,500 feet, south into Lower California and the State of Sonora, Mexico.

a. *Lepus arizonæ goldmani* Nelson.

Lepus arizonæ goldmani Nelson, Proc. Biol. Soc. Wash., XVII, 1904, p. 107.

Lepus goldmani Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, Append., p. 745. Zoöl. Ser.

SINALOA COTTON-TAIL.

Type locality. Culiacan, State of Sinaloa, Mexico.

Geogr. Distr. Southern part of the State of Sonora to central part of the State of Sinaloa.

b. **Lepus arizonæ pinetis* (Allen).

Lepus sylvaticus pinetis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 348.

Lepus grangeri pinetis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 285. Zoöl. Ser.

PINE WOOD COTTON-TAIL.

Type locality. White Mountains, Apache County, Arizona.

Geogr. Distr. White Mountains, southeastern Arizona north to Colorado.

c. *Lepus arizonæ major* Mearns.

Lepus arizonæ major Mearns, Proc. U. S. Nat. Mus., 1896, p. 557. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 286. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 423. Zoöl. Ser.

GREATER DESERT COTTON-TAIL.

Type locality. Calabasas, Pima County, Arizona.

Geogr. Distr. Colorado, through plateau of Arizona south to the Mimbres, State of Chihuahua, and west to Poso de Luis, State of Sonora, Mexico.

d. *Lepus arizonæ minor* Mearns.

Lepus arizonæ minor Mearns, Proc. U. S. Nat. Mus., 1896, p. 557. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 286. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 423. Zoöl. Ser.

LESSER DESERT COTTON-TAIL.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. Plains of Colorado southward to the Rio Grande, and westward to the elevated central tract, and intergrades with *L. a. major* in the pass between the southern end of the Rocky Mountains and the northern extremity of the Sierra Nevada; south into the State of Chihuahua, Mexico.

e. *Lepus arizonæ confinis* Allen.

Lepus arizonæ confinis Allen, Bull. Am. Mus. Nat. Hist. N. Y., x, 1898, p. 146. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 424. Zoöl. Ser.

ALLIED COTTON-TAIL.

Type locality. Playa Maria, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico. Range unknown.

*More appropriately a sub-species of *L. arizonæ* than of *L. grangeri*, as given in the Synopsis.

871. *Lepus orizabæ* Merriam.

Lepus orizabæ Merr., Proc. Biol. Soc. Wash., VIII, 1893, p. 143.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. I, 1904, p. 425. Zoöl. Ser.

ORIZABA COTTON-TAIL.

Type locality. Mt. Orizaba, State of Puebla, Mexico. Altitude, about 9,500 feet.

Geogr. Distr. State of Puebla, Mexico.

872. *Lepus graysoni* Allen.

Lepus graysoni Allen, N. Am. Rod., 1877, p. 347. Elliot, Mamm.

Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p.

426. Zoöl. Ser.

GRAYSON'S COTTON-TAIL.

Type locality. Maria Madre Island, Tres Marias Islands, State of Jalisco, Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico.

Subgenus C. *Brachylagus*. Short-tailed Cotton-tails.

873. *Lepus idahoensis* Merriam.

Lepus idahoensis Merr., N. Am. Faun., No. 5, 1891, p. 76, fig. 4,

p. 77. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p.

287. Zoöl. Ser.

IDAHO COTTON-TAIL.

Type locality. Pahsimeroi Valley, central Idaho.

Geogr. Distr. Sage Plains on the Snake River, Idaho, and the northward extension of these plains; south into northern Nevada, and west into eastern Oregon and Washington.

Subgenus D. *Tapeti*. Tailless Hares.

874. *Lepus gabbi* (Allen).

Lepus brasiliensis var. *gabbi* Allen, N. Am. Rod., 1877, p. 349.

Lepus gabbi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. I, 1904, p. 426, fig. 81. Zoöl. Ser.

GABB'S HARE.

Type locality. Talamanca, Costa Rica.

Geogr. Distr. Costa Rica, Central America.

875. *Lepus incitatus* Bangs.

Lepus incitatus Bangs, Amer. Nat., xxxv, 1901, p. 633. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. I,

1904, p. 428. Zoöl. Ser.

FLEET HARE.

Type locality. San Miguel Island, Bay of Panama.

Geogr. Distr. Known only from the type locality.

Subgenus E. *Microlagus*. Short-tailed Hares.

876. *Lepus bachmani* Waterhouse.

Lepus bachmani Waterh., Proc. Zool. Soc., 1838, p. 103. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 429. Zool. Ser.

Lepus floridanus bachmani Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 281. Zool. Ser.

BACHMAN'S COTTON-TAIL. *Conejo* in Mexico.

Type locality. Southwest coast of North America, probably California.

Geogr. Distr. Fort Crook, California, south to Cape St. Lucas, Lower California, Mexico.

a. *Lepus bachmani ubericolor* Miller.

Lepus bachmani ubericolor Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 383.

Lepus floridanus ubericolor Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 282. Zool. Ser.

RICH-COLORED COTTON-TAIL.

Type locality. Beaverton, Washington County, Oregon.

Geogr. Distr. Northwestern Oregon. Range unknown.

877. *Lepus cerrosensis* Allen.

Lepus cerrosensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 145. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 428. Zool. Ser.

CERROS ISLAND COTTON-TAIL.

Type locality. Cerros or Cedros Island, off west coast of Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

878. *Lepus cinerascens* Allen.

Lepus cinerascens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 159. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 287, Pl. xxvii. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 429, fig. 82. Zool. Ser.

ASH-COLORED COTTON-TAIL.

Type locality. San Fernando, Los Angeles County, California.

Geogr. Distr. Lower California, Mexico, and desert of southern California.

879. *Lepus peninsularis* Allen.

Lepus peninsularis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1898, p. 144. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 430. Zoöl. Ser.

LOWER CALIFORNIA COTTON-TAIL.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California, Mexico.

Subgenus F. **Macrotolagus.** Jack Rabbits.

880. *Lepus alleni* Mearns.

Lepus alleni Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 294. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 288. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 433, fig. LVIII. Zoöl. Ser.

ALLEN'S JACK RABBIT.

Type locality. Rillito Station, Southern Pacific Railroad, Pima County, Arizona.

Geogr. Distr. Desert region between Phoenix and Benson, Arizona. Mexico?

a. *Lepus alleni palitans* Bangs.

Lepus alleni palitans Bangs, Proc. N. Eng. Zoöl. Club, 1, 1900, p. 85. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 434. Zoöl. Ser.

WANDERING JACK RABBIT.

Type locality. Agua Caliente, forty miles southeast of Mazatlan, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico. Range unknown.

881. *Lepus callotis* Wagler.

Lepus callotis Wagl., Nat. Syst. Amph., 1830, p. 23. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 288. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 431. Zoöl. Ser.

Lepus nigricaudatus Bennett, Proc. Zoöl. Soc., 1833, p. 41.

Lepus mexicanus Rich., 6th Rep. Brit. Assoc., 1837, p. 150.

**Lepus flavigularis* Wagn., Schreb. Säugth., Suppl., IV, 1844, p. 107

BEAUTIFUL-EARED JACK RABBIT.

Type locality. "Mexico."

Geogr. Distr. Through Mexico, from State of Chihuahua to Tehuantepec.

* See Appendix, p. 543.

882. *Lepus festinus* Nelson.

Lepus festinus Nelson, Proc. Biol. Soc. Wash., xvii, 1904, p. 108.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, Append., p. 746. Zoöl. Ser.

HIDALGO JACK RABBIT.

Type locality. Irolo, State of Hidalgo, Mexico.

Geogr. Distr. Southeastern part of Mexican tableland in southern and eastern parts of State of Queretaro, throughout most of the State of Hidalgo, extreme northern part of State of Mexico and Valley of Mexico, State of Tlaxcala, and adjacent northern part of the State of Puebla.

883. *Lepus merriami* Mearns.

Lepus texianus! Aud. & Bachm., N. Am. Quad., III, 1853, p. 156, pl. cxxxiii. (nec Waterhouse.)

Lepus merriami Mearns, Proc. U. S. Nat. Mus., 1896, p. 444.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 289, pl. xxvii. Zoöl. Ser. *Id.*, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. I, 1904, p. 432. Zoöl. Ser.

MERRIAM'S JACK RABBIT.

Type locality. Fort Clark, Kinney County, Texas.

Geogr. Distr. Northern Mexico near boundary line and "Lower Gulf Coast to the mouth of the Rio Grande, and up that stream to the mouth of the Devil's River."

a. *Lepus merriami altimiræ* Nelson.

Lepus merriami altimiræ Nelson, Proc. Biol. Soc. Wash., xvii, 1904, p. 109.

Lepus altimiræ Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, Append., p. 745. Zoöl. Ser.

ALTA MIRA JACK RABBIT.

Type locality. Alta Mira, State of Tamaulipas, Mexico.

Geogr. Distr. Coast plains in southern part of the State of Tamaulipas, extreme northern part of the State of Vera Cruz, and eastern part of the State of San Luis Potosi.

884. *Lepus gaillardi* Mearns.

Lepus gaillardi Mearns, Proc. U. S. Nat. Mus., 1896, p. 560. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 289. Zoöl.

Ser. *Id.*, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. I, 1904, p. 433. Zoöl. Ser.

GAILLARD'S JACK RABBIT.

Type locality. Playas Valley, near its west fork, near Monument No. 63, Mexican boundary line, Grant County, New Mexico.

Geogr. Distr. State of Sonora, Mexico, into plain east of the San Luis Mountains, at the head of the Rio Yaqui, and east of that river's watershed. Extent of range unknown.

a. Lepus gaillardi battyi Allen.

Lepus gaillardi battyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 607. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 433. Zoöl. Ser.

BATTY'S JACK RABBIT.

Type locality. Rancho Santuario, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico. Range unknown.

885. *Lepus asellus* Miller.

Lepus asellus Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 380.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 435. Zoöl. Ser.

DONKEY JACK RABBIT.

Type locality. Near city of San Luis Potosi, State of San Luis Potosi, Mexico.

Geogr. Distr. State of San Luis Potosi, Mexico. Range unknown.

886. *Lepus melanotis* Mearns.

Lepus melanotis Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1890,

p. 297. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 290. Zoöl. Ser.

BLACK-EARED JACK RABBIT.

Type locality. Independence, Montgomery County, Kansas.

Geogr. Distr. Kansas, western Texas, Oklahoma, and Indian Territories.

887. *Lepus texensis* (Waterhouse).

Lepus texianus! Waterh., Nat. Hist. Mamm., II, 1848, p. 136.

Lepus texensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 290. Zoöl. Ser.

TEXAS JACK RABBIT.

Type locality. Unknown.

Geogr. Distr. Southeastern Oregon to Mexico, and from the Sierra Nevada to eastern border of plains east of Rocky Mountains?

a. Lepus texensis eremicus (Allen).

Lepus texianus! eremicus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1894, p. 347.

Lepus texensis eremicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 291. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 435, pl. xli. Zoöl. Ser.

DESERT JACK RABBIT.

Type locality. Fairbank, Cochise County, Arizona.

Geogr. Distr. White Mountains region, southeastern Arizona, south into State of Sonora, Mexico.

b. *Lepus texensis griseus* (Mearns).

Lepus texianus! griseus Mearns, Proc. U. S. Nat. Mus., 1896, p. 562.

Lepus texensis griseus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 291. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 436. Zoöl. Ser.

GRAY DESERT JACK RABBIT.

Type locality. Fort Hancock, El Paso County, Texas.

Geogr. Distr. Upper Rio Grande from Maverick to Kinney County, Texas, west to Grant County, New Mexico, and south to the States of Coahuila and Chihuahua, Mexico.

c. *Lepus texensis micropus* (Allen).

Lepus texianus! micropus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 605.

Lepus texensis micropus Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. I, 1904, p. 436. Zoöl. Ser.

SMALL-FOOTED HARE.

Type locality. Rio del Bocas, State of Durango, Mexico. Altitude, 6,800 feet.

Geogr. Distr. State of Durango.

d. *Lepus texensis deserticola* (Mearns).

Lepus texianus! deserticola Mearns, Proc. U. S. Nat. Mus., 1896, p. 564.

Lepus texensis deserticola Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 291. Zoöl. Ser. *Id.* Mamm. Middle Amer.

& W. Indies, F. C. M. Pub., IV, Pt. I, 1904, p. 437. Zoöl. Ser.

WESTERN DESERT JACK RABBIT.

Type locality. Western edge of the Colorado Desert, at the base of the Coast Range Mountains, San Diego County, California.

Geogr. Distr. Desert region east of the high Sierra, including the Mohave and Colorado deserts and the region between the Sonoyta Valley of Arizona and the State of Sonora, Lower California, Mexico.

e. *Lepus texensis wallawalla* (Merriam).

Lepus texianus! wallawalla Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 137.

WALLAWALLA JACK RABBIT.

Type locality. Touchet, Plains of the Columbia, Washington.

Geogr. Distr. Plains of the Columbia in Oregon and Washington

Genl. Char. Similar to *L. texensis deserticola*, but darker above in summer pelage; in winter pelage like *L. t. eremicus* or *L. tularensis*. Ears shorter; hind foot slightly larger.

Color. Fall Pelage. Upper parts mixed black and buffy fulvous, deeper on the sides; pectoral band dark fulvous; top of head and sides of face grizzled gray; orbital ring and sides of face pale fulvous; ears finely grizzled fulvous brown. In summer the orbital ring is nearly white; cheeks are pale buffy gray, and the pectoral collar pale yellowish buffy.

Measurements. Type. Total length, 555; tail vertebræ, 95; hind foot, 126.

888. *Lepus tularensis* Merriam.

Lepus tularensis Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 136.

TULARE JACK RABBIT.

Type locality. Alila (San Joaquin Valley), Tulare County, California.

Geogr. Distr. Baker's field, Tulare Basin, south end of San Joaquin Valley, California.

Genl. Char. Similar to *L. t. deserticola*, but paler and more yellowish; size rather small.

Color. General color pale buffy grayish toned with yellowish; back slightly grizzled with black; nape patch whitish; face and neck pale buffy yellowish or yellowish buff slightly grizzled with dark hairs; pectoral collar pale yellowish; thighs grayish clay color; under parts white tinged with pale yellow; buffy on sides.

Measurements. Total length, 558; tail vertebræ, 84; hind foot, 117.

889. *Lepus californicus* Gray.

Lepus californica Gray, Charlesw. Mag. Nat. Hist., i, 1837, p. 586.

Lepus californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 291. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 437. Zoöl. Ser.

Lepus bennetti Gray, Voy. Sulphur, Zoöl., 1844, p. 36, pl. 14.

CALIFORNIA JACK RABBIT.

Type locality. "St. Antoine," Santa Barbara County? California.

Geogr. Distr. Northern California south to Cape St. Lucas, Lower California, Mexico.

a. *Lepus californicus xanti* Thomas.

Lepus californicus xanti Thomas, Ann. Mag. Nat. Hist., 7th Ser., i, 1898, p. 45. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 1, 1904, p. 438. Zoöl. Ser.

LOWER CALIFORNIA JACK RABBIT.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California, Mexico.

890. *Lepus insularis* Bryant.

Lepus insularis Bryant, Proc. Calif. Acad. Scien., 2d Ser., III, 1891, p. 92. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 438. Zool. Ser.

Lepus edwardsi St. Loup, Bull. Mus. Hist. Nat. Paris, 1895, p. 5.

ESPERITO SANTO ISLAND JACK RABBIT.

Type locality. Esperito Santo Island, coast of Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

891. *Lepus martirensis* Stowell.

Lepus martirensis Stowell, Proc. Calif. Acad. Scien., 2d Ser., v, 1895, p. 51. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 1, 1904, p. 439. Zool. Ser.

SAN PEDRO MARTIR JACK RABBIT.

Type locality. La Grulla, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 8,000 feet.

Geogr. Distr. San Pedro Martir Range, Lower California, Mexico.

Subgenus G. *Lepus*. Changeable Hares.892. *Lepus arcticus* "Leach" Ross.

Lepus arcticus "Leach" Ross, Voy. Arct. Reg., II, 1819, Append., IV, p. 151. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 270. Zool. Ser.

Lepus glacialis Leach, in Ross' Voy. Arct. Reg., II, 1819, Append., IV, p. 170.

Lepus timidus var. *arcticus* Allen, Mon. N. Am. Rod., 1877, p. 288.

POLAR HARE.

Type locality. Baffin Land, southeast of Cape Bowen.

Geogr. Distr. Labrador, west shore of Hudson Bay, north shore of Great Slave Lake, and Barren Grounds to the Arctic Ocean; west of the mountains in the Upper Yukon Valley.

a. *Lepus arcticus bangsi* Rhoads.

Lepus arcticus bangsi Rhoads, Amer. Nat., xxx, 1896, p. 236. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 270. Zool. Ser.

BANGS' POLAR HARE.

Type locality. Codroy, Newfoundland.

Geogr. Distr. Newfoundland, northern Labrador. Range unknown.

b. *Lepus arcticus canus* Preble.

Lepus arcticus canus Preble, N. Am. Faun., No. 22, 1902, p. 59.

HOARY POLAR HARE.

Type locality. Hubbard Point, 75 miles north of Fort Churchill, Keewatin, Canada.

Geogr. Distr. Barren Grounds from Fort Churchill northwards in Arctic America.

Color. Upper parts with the hairs light plumbeous at base, then yellowish fawn, then dusky and tips white; throat, rump, and thighs light plumbeous; chin grayish white; head grizzled fawn; nape grayish; occiput dusky; soles of feet clay color; ears anteriorly dusky grayish, edged at the center with white; interior dusky with the tips white. Winter pelage white, ears tipped with black.

Measurements. Total length, 570; tail vertebræ, 80; hind foot, 154. Skull: greatest length, 98; zygomatic breadth, 50; breadth across postorbital processes, 39; length of the upper molar series, 19.

893. *Lepus labradorius* Miller.

Lepus labradorius Miller, Proc. Biol. Soc. Wash., XIII, 1899, p. 39.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 271.

Zoöl. Ser.

LABRADOR HARE.

Type locality. Fort Chimo, Ungava, Labrador.

Geogr. Distr. Ungava, Labrador. Range unknown.

894. *Lepus grœnlandicus* Rhoads.

Lepus grœnlandicus Rhoads, Amer. Nat., xxx, 1896, p. 236. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 271. Zoöl. Ser.

GREENLAND HARE.

Type locality. Robertson's Bay (N. lat. 78°), Greenland.

Geogr. Distr. Greenland.

895. *Lepus tschuktschorum* Nordquist.

Lepus tschuktschorum Nordquist, Vega Exped., II, 1883, p. 84,

figs. 8, 9, 10. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,

1901, p. 271. Zoöl. Ser.

SIBERIAN HARE.

Type locality. Pitlekaj, lat. 67° N., long. 173° W., northeast Siberia.

Geogr. Distr. Northwest Alaska from the mouth of the Kuskoquim River to the Arctic Ocean. Siberia.

896. *Lepus othus* Merriam.

Lepus othus Merr., Proc. Wash. Acad. Scien., II, 1900, p. 28. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 272. Zoöl. Ser.

ST. MICHAELS' HARE.

Type locality. St. Michaels, Norton Sound, Alaska.

Geogr. Distr. Northwestern Alaska. Range unknown.

897. *Lepus poadromus* Merriam.

Lepus poadromus Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 29.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 272.

Zoöl. Ser.

SWIFT HARE.

Type locality. Stepovak Bay, Alaska Peninsula, Alaska.

Geogr. Distr. Alaska Peninsula. Range unknown.

898. *Lepus americanus* Erxleben.

Lepus americanus Erxl., Syst. Reg. Anim., 1, 1777, p. 330.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 273.

Zoöl. Ser.

Lepus hudsonius Pallas, Nov. Spec. Quad. Glires, 1778, p. 30.

Lepus nanus Schreb., Säugth., 11, 1792, pl. 234 B.

Lepus borealis Schinz, Synop., 11, 1845, p. 286.

Lepus campestris Hayden, Amer. Nat., 111, 1869, p. 115. (Part.)

AMERICAN HARE.

Type locality. Vicinity of Hudson Bay, Canada.

Geogr. Distr. New Brunswick and Nova Scotia northward to the limit of trees, and westward to Alaska.

a. *Lepus americanus virginianus* (Harlan).

Lepus virginianus Harlan, Faun. Amer., 1825, p. 196.

Lepus americanus virginianus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 273. Zoöl. Ser.

VIRGINIAN HARE.

Type locality. Blue Mountains, northeast of Harrisburg, Pennsylvania.

Geogr. Distr. Atlantic coast from Nova Scotia to Connecticut, and in the Alleghanies south to Virginia; through the northern part of the border tier of States and the southern half of Canada west to the north shore of Lake Superior and northern Minnesota to the Missouri River.

b. *Lepus americanus phæonotus* Allen.

Lepus americanus phæonotus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 11. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 273. Zoöl. Ser.

WESTERN HARE.

Type locality. Hallock, Kittson County, Minnesota.

Geogr. Distr. Central and northern Minnesota. Range unknown.

c. *Lepus americanus struthopus* Bangs.

Lepus americanus struthopus Bangs, Proc. Biol. Soc. Wash., xii, 1898, p. 81. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 274. Zoöl. Ser.

GREAT-FOOTED HARE.

Type locality. Digby, Nova Scotia, Canada.

Geogr. Distr. Province of Nova Scotia. Range unknown.

d. *Lepus americanus bairdi* (Hayden).

Lepus bairdii Hayden, Amer. Nat., iii, 1869, p. 115.

Lepus americanus bairdi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 274. Zoöl. Ser.

BAIRD'S HARE.

Type locality. Columbia Valley, Wind River Mountains, Fremont County, Wyoming.

Geogr. Distr. Higher portions of the Rocky Mountains from Great Slave Lake, Arctic America, south to New Mexico.

e. *Lepus americanus washingtoni* (Baird).

Lepus washingtonii Baird, Proc. Acad. Nat. Scien. Phil., 1855, p. 333, pl. 15.

Lepus americanus washingtoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 274. Zoöl. Ser.

WASHINGTON HARE.

Type locality. Vicinity of Puget Sound, Washington.

Geogr. Distr. North latitude 55°, south to the mouth of the Willamette River, Oregon.

f. *Lepus americanus columbiensis* Rhoads.

Lepus americanus columbiensis Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 242. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 275. Zoöl. Ser.

BRITISH COLUMBIAN HARE.

Type locality. Vernon, British Columbia, Canada.

Geogr. Distr. Arid interior basin of southern British Columbia, Canada.

g. *Lepus americanus dalli* Merriam.

Lepus americanus dalli Merr., Proc. Wash. Acad. Scien., ii, 1900, p. 29. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 275. Zoöl. Ser.

DALL'S HARE.

Type locality. Nulato River, Alaska.

Geogr. Distr. Unknown.

h. *Lepus americanus macfarlanii* Merriam.

Lepus americanus macfarlani Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 30. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 275. Zoöl. Ser.

MACFARLANE'S HARE.

Type locality. Fort Anderson, near mouth of Anderson River, Mackenzie, Arctic America, Canada.

Geogr. Distr. Arctic America. Range unknown.

899. *Lepus saliens* Osgood.

Lepus saliens Osgood, N. Am. Faun., No. 19, 1900, p. 39. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 276. Zoöl. Ser.

LEAPING HARE.

Type locality. Caribou Crossing, between Lake Bennett and Lake Tagish, Northwest Territory, Canada.

Geogr. Distr. Limits of range unknown.

900. *Lepus bishopi* Allen.

Lepus bishopi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 11. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 276. Zoöl. Ser.

BISHOP'S HARE.

Type locality. Mill Lake, Turtle Mountains, near northern border of North Dakota.

Geogr. Distr. North Dakota. Range unknown.

901. *Lepus klamathensis* Merriam.

Lepus klamathensis Merr., N. Am. Faun., No. 16, 1899, p. 100. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 276. Zoöl. Ser.

KLAMATH HARE.

Type locality. Fort Klamath, Klamath County, Oregon.

Geogr. Distr. Oregon. Range unknown.

902. *Lepus campestris* Bachman.

Lepus campestris Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 349. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 277. Zoöl. Ser.

PLAINS HARE.

Type locality. Plains of the Saskatchewan, Canada.

Geogr. Distr. Twin Plains of Saskatchewan southward to Kansas, and from Minnesota westward to the Rocky Mountains; and from Green River in southwestern Wyoming over eastern Idaho, northern Utah, and northeastern Nevada.

a. *Lepus campestris richardsoni* (Bachman).

Lepus richardsoni Bachm., Journ. Acad. Nat. Scien. Phil., 1839, p. 88. Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 136.

RICHARDSON'S HARE.

Type locality. California.

Geogr. Distr. Salinas Valley, and Ranges on either side, and mountains around south end of Joaquin Valley, passing north in the foothills of the Sierra to about latitude of San Francisco.

Color. Head, cheeks, and upper parts mixed yellowish white, black, and pale buff, giving a mottled gray effect; back of ears, neck, breast, and upper part of fore and hind legs brownish gray; chin and throat white; entire under surface of the body white, tinged with yellowish on the sides; soles of feet pale dark brown; tail above black, beneath pale brownish yellow; outside of ears grizzled black and pale yellow, edged with white, but not reaching the tip; interior of ears white, becoming black near the edge.

Measurements. Total length, 481.6; tail vertebræ, 33; hind foot to end of nails, 119.3; ear, 175.8.

b. *Lepus campestris townsendi* (Bachman).

Lepus townsendi Bachm., Journ. Acad. Nat. Scien. Phil., 1839, p. 90.

Lepus campestris townsendi Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 132.

TOWNSEND'S HARE.

Type locality. Walla Walla, Washington.

Geogr. Distr. Plains of the Columbia and Oregon in Washington.

Color. Upper parts clear gray; thighs and hind legs deep gray; top of fore leg and foot buffy gray grizzled with black; top of head and front of ears gray tinged slightly with pale buffy fulvous; pectoral collar buffy gray; edge of ear black.

Measurements. "Average of 5. Total length, 576; tail vertebræ, 81; hind foot, 147."

c. *Lepus campestris sierræ* Merriam.

Lepus campestris sierræ Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 132.

SIERRA HARE.

Type locality. Hope Valley, Alpine County, California. Altitude, 7,800 feet.

Geogr. Distr. Sierra Nevada from Lake Tahoe to south of Mono Lake, in summer. Winter range, east side of the Sierra in Nevada and California.

Genl. Char. Size large; similar to *L. c. townsendi* generally.

Color. Back, thighs, and pectoral collar gray; gray median band on tail above; orbital ring broad, white; upper lip and sides of nose buffy fulvous; flanks gray, encroaching on the belly; top of fore legs grizzled buffy fulvous; wrists and fore feet dirty yellowish white; hind feet white.

Measurements. Total length, 635; tail vertebræ, 112; hind foot, 167.

Order VII. **Carnivora. Carnivores.**

Family I. **Felidae. Cats.**

Genus 112. **Felis.**

Felis Linn., Syst. Nat., 1, 1758, p. 41; 1, 1766, p. 60. Type *Felis catus* Linnæus.

Linx (sic) Frisch., Das Natur-syst. vierfüss. Thiere, in Tabellen, 12, Tab. Gen., 1775.

Lynx Kerr, Anim. Kingd. Syst. Catal., pp. 32-33, 1792, desc. p. 155.

Lynceus Gray, Lond. Med. Repos., xv, 1821, 302.

Puma Jard., Nat. Libr., Mamm., 11, 1834, p. 266.

Lynchus Jard., Nat. Libr., Mamm., 11, 1834, pp. 274, 275.

Leopardus Gray, Ann. Mag. Nat. Hist., x, 1842, 260. (nec 1867).

Herpailurus Severtz., Rev. Mag. Zool., 2me Sér., x, 1858, p. 385.

Jaguaris Severtz., Rev. Mag. Zool., 2me Sér., x, 1858, pp. 386, 390.

Lynchailurus Severtz., Rev. Mag. Zool., 2me Sér., x, 1858, pp. 386, 390.

Noctifelis Severtz., Rev. Mag. Zool., 2me Sér., x, 1858, pp. 386, 390.

Oncifelis Severtz., Rev. Mag. Zool., 2me Sér., x, 1858, pp. 386, 390.

Leopardus Gray, Proc. Zoöl. Soc., 1867, p. 263.

Margay Gray, Proc. Zoöl. Soc., 1867, p. 271.

Pardalis Gray, Proc. Zoöl. Soc., 1867, p. 272.

Cervaria Gray, Proc. Zoöl. Soc., 1867, p. 276.

Subgenus A. **Leopardus. Jaguars, Ocelots, etc.**

Felis onca centralis (Mearns).

Felis centralis Mearns, Proc. Biol. Soc. Wash., xiv, 1901, p. 139.

Felis onca centralis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 11, 1904, p. 446, pls. XLII and XLIII. Zoöl. Ser.

COSTA RICA JAGUAR.

Type locality. Talamanca, Costa Rica.

Geogr. Distr. Costa Rica, north to Honduras, Central America.

Felis onca hernandezii (Gray).

Leopardus hernandezii Gray, Proc. Zoöl. Soc., 1857, p. 278.

Felis onca Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 294. Zoöl. Ser. (Part.)

Felis onca hernandezii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, 1904, p. 446. Zoöl. Ser. *Id.* Mon. Felidæ, pl. v (*Felis onca*), fig. LIX, No. 2.

HERNANDEZ'S JAGUAR.

Type locality. Mazatlan, State of Sinaloa, Mexico.

Geogr. Distr. Apparently western Mexico from State of Colima north to San Blas.

Felis onca goldmani (Mearns).

Felis hernandezii goldmani Mearns, Proc. Biol. Soc. Wash., XIV, 1901, p. 142.

Felis onca goldmani Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 447. Zoöl. Ser.

GOLDMAN'S JAGUAR.

Type locality. Yohatlan, State of Campeche, Mexico.

Geogr. Distr. Unknown.

903. *Felis pardalis* Linnæus.

Felis pardalis Linn., Syst. Nat., I, 1758, p. 42; I, 1766, p. 62. Elliot, Mon. Felidæ, 1881, pl. XVIII. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 294. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 447. Zoöl. Ser.

OCELOT. *Manigordo* in Costa Rica.

Type locality. Mexico.

Geogr. Distr. Southern Texas to Mexico and southward to Buenos Ayres, east of the Andes. Boquete, Chiriqui, Panama. Central America. (Bangs.)

a. *Felis pardalis mearnsi* Allen.

Felis costaricensis Mearns, Proc. U. S. Nat. Mus., 1902, p. 245. (nec Merr.)

Felis pardalis mearnsi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 71. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 448. Zoöl. Ser.

COSTA RICA OCELOT.

Type locality. Talamanca, Costa Rica.

Geogr. Distr. Costa Rica. Range unknown.

904. *Felis carrikeri* Allen.

Felis carrikeri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 47. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 448. Zoöl. Ser. Melanistic specimen.

CARRIKER'S OCELOT.

Type locality. Pozo Azul, Pirris Province, Costa Rica.

Geogr. Distr. Costa Rica. Range unknown.

905. *Felis tigrina* Erxleben.

Felis tigrina Erxl., Syst. Regn. Anim., I, 1777, p. 517. Elliot, Mon. Felidæ, 1881, pl. XIX. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 449. Zoöl. Ser.

Felis mitis F. Cuv., Hist. Nat. Mamm., II, 1820, pl. 137.

Felis brasiliensis F. Cuv., Hist. Nat. Mamm., 1820, pl. 139.

Felis macroura Max., Beitr. Naturg. Bras., II, 1826, p. 371.

Felis chati Griff., Anim. King., II, 1827, p. 479.

Felis elegans Less., Cent. Zool., 1830, p. 69, pl. 21.

THE MARGAY. *Cauzel* in Costa Rica.

Type locality. Unknown. "South America."

Geogr. Distr. Honduras to Paraguay.

906. *Felis glaucula* Thomas.

Felis glaucula Thomas, Ann. Mag. Nat. Hist., 7th Ser., XII, 1903, p. 235. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 450. Zoöl. Ser.

SMALL SPOTTED CAT.

Type locality. Beltran, State of Jalisco, Mexico.

Geogr. Distr. Unknown.

Felis pardinoides oncella Thomas.

Felis pardinoides oncella Thomas, Ann. Mag. Nat. Hist., 7th Ser., XII, 1903, p. 237. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 450. Zoöl. Ser.

OUNCE-LIKE CAT.

Type locality. Volcan de Irazú, Costa Rica.

Geogr. Distr. Unknown.

907. *Felis jaguarondi* Fischer.

Felis jaguarondi Fisch., Zoogn., 1814, p. 228. Elliot, Mon. Felidæ, 1881, pl. XIII. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 295. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 451, fig. 83. Zoöl. Ser.

JAGUARONDI. *Leon monero*, *Leon miquero* in Costa Rica.

Type locality. Paraguay.

Geogr. Distr. Rio Grande, Texas, southward to Paraguay, east of the Andes.

a. *Felis jaguarondi cacomitli* (Berlandier).

Felis cacomitli Berl., in Baird, Rep. U. S. & Mex. Bound. Surv., Mamm., II, 1857, p. 12.

Felis jaguarondi cacomitli Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 451. Zoöl. Ser.

GRAY JAGUARONDI.

Type locality. Matamoros, State of Tamaulipas, Mexico.

Geogr. Distr. Unknown.

b. *Felis jaguarondi tolteca* Thomas.

Felis jaguarondi tolteca Thomas, Ann. Mag. Nat. Hist., 7th Ser.,

I, 1898, p. 41. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 452. Zoöl. Ser.

SINALOA JAGUARONDI.

Type locality. Tatemelas, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico. Range unknown.

908. *Felis panamensis* Allen.

Felis panamensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904,

p. 71. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 452. Zoöl. Ser.

BOQUERON JAGUARONDI.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

909. *Felis eyra* Fischer.

Felis eyra Fisch., Zoogn., 1814, p. 228. Elliot, Mon. Felidæ, 1881,

pl. xiv. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,

p. 295. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 453. Zoöl. Ser.

THE EYRA. *Apache*, *Onza* in Mexico.

Type locality. Paraguay.

Geogr. Distr. Brownsville, Texas, south to Paraguay; east of the Andes.

a. *Felis eyra apache* (Mearns).

Felis eyra Baird, Rep. U. S. & Mex. Bound. Surv., Mamm., 1857,

p. 88, pl. LXII, fig. 1. (nec Fischer.)

Felis apache Mearns, Proc. Biol. Soc. Wash., XIV, 1901, p. 150.

Felis eyra apache Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 453. Zoöl. Ser.

TAMAULIPAS EYRA.

Type locality. Rio Grande del Norte, State of Tamaulipas, Mexico.

Geogr. Distr. State of Tamaulipas, Mexico. Range unknown.

910. *Felis fossata* Mearns.

Felis fossata Mearns, Proc. Biol. Soc. Wash., XIV, 1901, p. 150.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 453. Zoöl. Ser.

YUCATAN EYRA.

Type locality. Merida, Yucatan.

Geogr. Distr. Yucatan. Range unknown.

Subgenus B. *Felis*. Pumas.*Felis concolor oregonensis* (Rafinesque).

Felis! oregonensis Rafin., Atlantic Journ., I, 1832, p. 62.

Felis hippolestes Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 219.

Felis hippolestes olympus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 220.

Felis hippolestes aztecus Merr., Proc. Wash. Acad. Scien., III, 1901, p. 592.

?**Felis aztecus browni* Merr., Proc. Biol. Soc. Wash., XVI, 1903, p. 73.

Felis concolor oregonensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 294. Zoöl. Ser. *Id.* Mamm. Middle Amer.

& W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 454, pls. XLIV, XLV. Zoöl. Ser.

NORTHWESTERN PUMA.

Type locality. Northwest coast.

Geogr. Distr. West coast of North America, west of Rocky Mountains south into northern Mexico.

911. *Felis cougar* Kerr.

Felis cougar Kerr, Anim. Kingd., 1792, p. 151.

Felis pennsylvanica Link, Beyt. Naturgesch., II, 1795, p. 90.

Felis concolor floridana Cory, Hunt. & Fish. Florida, 1896, p. 109.

Felis coryi Bangs, Proc. Biol. Soc. Wash., XIII, 1899, p. 15.

Felis concolor Auct., Eastern North America.

EASTERN PUMA.

Type locality. Pennsylvania.

Geogr. Distr. Adirondack Mountains, New York; Green Mountains, Vermont; higher Alleghanies of Pennsylvania, Maryland, and West Virginia; and Florida.

Genl. Char. Size various, medium to large; color various.

Color. General hue fulvous or tawny, changing with the seasons; belly rufous or whitish; ears behind blackish, upper lip with the usual black patch.

Measurements. Total length, 1828.8; tail, 609.6. Killed in the Blue Mountains, Berks County, Pennsylvania. See Forest and Stream, III, 1874, p. 67. No skull is available for measurements.

*I have not seen a specimen of this form, but I find nothing in Dr. Merriam's description to warrant a distinct rank. I have placed the name with a query. *Felis concolor* by some has been restricted to South America.

* *Felis bangsi costaricensis* Merriam.

Felis bangsi costaricensis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 596. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 456. Zool. Ser.

CENTRAL AMERICAN PUMA.

Type locality. Boquete, Chiriqui, Panama.

Geogr. Distr. Unknown.

Subgenus C. *Lynx*. *Lynx*.912. *Felis canadensis* (Kerr).

Lynx canadensis Kerr, Anim. Kingd., 1792, p. 32, desc. p. 157.

Felis canadensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 295. Zool. Ser.

CANADA LYNX.

Type locality. Eastern Canada.

Geogr. Distr. Boreal America, from Maine to 60° north latitude, and from the Atlantic to the Pacific Ocean, possibly not including Alaska.

a. *Felis canadensis mollipilosa* (Stone).

Lynx canadensis mollipilosus Stone, Proc. Acad. Nat. Scien. Phil., 1900, p. 48.

Felis canadensis mollipilosus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 295. Zool. Ser.

SOFT-FURRED LYNX.

Type locality. Wainwright Inlet, Point Barrow, Alaska.

Geogr. Distr. Alaska. Range undetermined.

b. *Felis canadensis subsolana* (Bangs).

Lynx subsolanus Bangs, Proc. Biol. Soc. Wash., XI, 1897, p. 49.

Felis canadensis subsolana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 296. Zool. Ser.

EASTERN LYNX.

Type locality. Codroy, Newfoundland.

Geogr. Distr. Newfoundland. Range unknown.

Subgenus D. *Cervaria*.913. *Felis rufa* Gldenstaedt.

Felis ruffa (*sic*) Gldenst., Nov. Comm. Acad. Imp. Scien. St. Ptersb., XX, 1776, p. 484.

Felis rufa Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 296. Zool. Ser.

*Of a very doubtful subspecific standing.

RED LYNX. WILD CAT.

Type locality. New York.

Geogr. Distr. Maine to southern Georgia; west to Texas.

a. *Felis rufa texensis* (Allen).

Felis maculata Vig. & Horsf., Zoöl. Journ., IV, 1829, p. 381, pl. XIII.

Lynx texensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 188.

Felis rufa maculata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 296. Zoöl. Ser.

Felis rufa texensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 298, and Suppl., p. 506 (note). Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 458. Zoöl. Ser.

SPOTTED LYNX. WILD CAT. *Gato montes* in Mexico for all Lynxes.

Type locality. Mexico.

Geogr. Distr. Mexico to California.

b. *Felis rufa fasciata* (Rafinesque).

Lynx fasciatus Rafin., Am. Month. Mag., II, 1817, p. 46.

Felis rufa fasciata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 297. Zoöl. Ser.

BARRED LYNX.

Type locality. "Northwest Coast," probably near the mouth of the Columbia River.

Geogr. Distr. Oregon and Washington.

c. *Felis rufa pallescens* (Merriam).

Lynx fasciatus pallescens Merr., N. Am. Faun., No. 16, 1899, p. 104.

Felis rufa pallescens Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 297. Zoöl. Ser.

PALLID LYNX.

Type locality. South side of Mount Adams, near Trout Lake, Skamania County, Washington.

Geogr. Distr. Region about Shasta Mountain, California; Oregon, and Washington.

d. *Felis rufa oculatea* (Bangs).

Lynx fasciatus oculus Bangs, Proc. N. Eng. Zoöl. Club, I, 1899, p. 23.

Felis rufa oculatea Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 297. Zoöl. Ser.

SHARP-SIGHTED LYNX.

Type locality. Nicasio, Marin County, California.*

Geogr. Distr. Coast region of California, north of San Francisco Bay.

e. * *Felis rufa baileyi* (Merriam).

Lynx baileyi Merr., N. Am. Faun., No. 3, 1890, p. 79.

Felis rufa baileyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 297. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 459, figs. 84, LX. Zoöl. Ser.

BAILEY'S LYNX.

Type locality. Moccasin Spring, Coconino County, Arizona.

Geogr. Distr. Arizona and northern Mexico. (State of Chihuahua.)

f. *Felis rufa eremica* (Mearns).

Lynx rufus eremicus Mearns, Proc. U. S. Nat. Mus., xx, 1897, p. 457.

Felis rufa eremica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 298. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 458. Zoöl. Ser.

DESERT LYNX.

Type locality. New River, near Laguna Station, Colorado Desert, San Diego County, California.

Geogr. Distr. Eastern and Western Desert Tracts on the Mexican Line; probably in the States of Sonora and Chihuahua, Mexico.

g. *Felis rufa californica* (Mearns).

Lynx rufus californicus Mearns, Proc. U. S. Nat. Mus., xx, 1897, p. 458.

Felis rufa californica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 298. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 458. Zoöl. Ser.

CALIFORNIA LYNX.

Type locality. San Diego, San Diego County, California.

Geogr. Distr. Pacific coast tract of California, and Lower California.

h. *Felis rufa floridana* (Rafinesque).

Lynx floridanus Rafin., Am. Month. Mag., 11, 1817, p. 46.

Felis rufa floridana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 299. Zoöl. Ser.

FLORIDA LYNX.

Type locality. Florida.

Geogr. Distr. Florida to Louisiana, Gulf Coast.

i. *Felis rufa escuinapæ* (Allen).

Lynx rufus (sic) *escuinapæ* Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 614.

*Does this not = *F. maculata* Vigors and Horsfield ex Mexico?

Felis rufa escuinapæ Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 456. Zoöl. Ser.

ESCUINAPA LYNX.

Type locality. Escuinapa, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico. Range unknown.

914. *Felis uinta* (Merriam).

Lynx uinta Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 71.

UINTA MOUNTAINS LYNX.

Type locality. Bridger Pass, south slope of the Uinta Mountains, Uinta County, Wyoming.

Geogr. Distr. Utah. Range unknown.

Genl. Char. Size large; tail very long with two black subterminal bands, black tips. Skull long, narrow; sagittal crest present; ascending arm of maxillary broad, under jaw heavy, teeth small.

Color. Above buffy grizzled with gray and black; beneath white with black spots, these becoming bands on inner sides of arms and thighs; throat fulvous, crossed by a fulvous brown band; V-shaped black mark on anterior part of throat; tail with two or three blackish bands above and black tip.

Measurements. Hind foot, 200; tail, 195.

915. *Felis gigas* (Bangs).

Lynx gigas Bangs, Proc. Biol. Soc. Wash., xi, 1897, p. 50.

Felis gigas Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 299. Zoöl. Ser.

GIANT LYNX.

Type locality. Fifteen miles back of Bear River, Nova Scotia.

Geogr. Distr. Nova Scotia: Range unknown.

916. *Felis peninsularis* (Thomas).

Lynx rufus peninsularis Thomas, Ann. Mag. Nat. Hist., 7th Ser.,
I, 1898, p. 42.

Felis peninsularis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 460. Zoöl. Ser.

LOWER CALIFORNIA LYNX.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California, Mexico.

Family II. **Viverridæ. Mongoose, Civets, etc.**

Genus 113. **Herpestes. Ichneumon.**

Herpestes Illig., Prodr. Syst. Mamm. et Av., 1811, p. 135. Type
Viverra ichneumon Gmelin.

917. *Herpestes mungo* (Gmelin).

Viverra mungo Gmel., Syst. Nat., I, 1788, p. 84.

Herpestes mungo Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 462, figs. 85, LXI. Zool. Ser.

COMMON INDIAN MUNGOOSE.

Type locality. India.

Geogr. Distr. India. Introduced into the islands of Jamaica,
Porto Rico, St. Kitts, etc.

Family III. **Canidæ. Dogs, Wolves, Foxes.**

Subfamily I. **Caninæ.**

Genus 114. **Canis. Dogs, Wolves.**

Canis Linn., Syst. Nat., I, 1758, p. 38; and I, 1766, p. 56. Type
Canis familiaris Linnæus.

Lupus Frisch, Nat.-Syst. vierfüss. Thiere, in Tabellen, 14, Tab.
Gen., 1775.

Lyciscus H. Smith, Jard. Nat. Libr., Mamm., 2d ed., IX, 1839,
pp. 160-166.

918. *Canis pambasileus* Elliot.

Canis pambasileus Elliot, Proc. Biol. Soc. Wash., XVIII, 1905, p. 79.
AUTOCRAT TIMBER WOLF.

Type locality. Sushitna River, region of Mount McKinley, Alaska.
No. 13,481, Field Columbian Mus., Chicago.

Genl. Char. Color from nearly uniform black to white and black
in various mixtures. Skull: size larger than those of the timber
wolves of Canada or United States; ridge of sagittal and occipital
crest nearly on a level with frontal and with only a very slight descent
at occiput and very deep at that point; maxillæ very broad and
rounded posteriorly at junction with the frontals, much broader than
in *C. occidentalis*; nasals pointed posteriorly, but considerably broader
than those of southern timber wolves; premaxillæ extending con-
siderably over one-half the length of the nasals, while in *C. occiden-
talis* in some cases this bone does not reach over one third the length
of the nasals and occasionally not even that length; intertemporal
width considerable, with a deep median depression between the
frontals; the basisphenoid is very broad, and the postglenoid processes
very wide and flattened; the mandible is massive, heavy, very deep,
and of nearly uniform height on horizontal portion, with the inferior
outline nearly straight, very different from the curving outline of the

mandible of *C. occidentalis*: the coronoid process is very broad, high, of nearly equal width throughout, and with the posterior outline nearly straight, not curving like that of the southern species; teeth in both jaws large and heavy, exceeding in size those of *C. occidentalis* in the same proportion as do the skulls.

Color. Type: General hue of body, tail, legs, and feet black; the bases of the long hairs a smoky white, showing rather conspicuously on the sides; a pure white spot on the breast and lower part of the abdomen, and large spots on the fore part of chest behind fore legs grayish white; head and ears shining black; tail black, with a few white hairs at tip; claws black.

Other specimens are all black with very few grayish white hairs showing. From this sable hue, which in certain sections seems to be the prevailing one, the color varies in different mixtures of black and white to that in which the white is the prominent color with jet black lines on dorsal surface and neck. The tail of this style is mostly white with black mixed in places and with the tip black.

Measurements. Skull: total length, 263; Hensel, 233; zygomatic width, 143; intertemporal width, 64; lateral length of nasals, 97; median length, 85; width of rostrum at canines, 55.5; palatal length, 126; width of palate between sectorials at base, 64; length of upper tooth row, anterior edge of canine to posterior edge of last molar, 114; length of canine, 36; alveolar length of carnassial, 27; width of row of incisors at tips, 42; total length of mandible, 206; depth beneath carnassial, 32; height at coronoid process from lower edge of angle, 78; width of coronoid process at tip, 29.

919. **Canis griseus* (Sabine).

Canis lupus griseus Sabine, Frankl. Narr. Journ. Polar Sea, 1823, p. 654.

Canis lupus albus Sabine, Frankl. Narr. Journ. Polar Sea, 1823, p. 655.

Lupus griseus var. A. Richard., Faun. Bor. Amer., Mamm., 1, 1829, p. 66.

Lupus albus var. B. Richard., Faun. Bor. Amer., Mamm., 1, 1829, p. 68.

Lupus sticticus var. C. Richard., Faun. Bor. Amer., Mamm., 1, 1829, p. 68.

*The status of the North American Timber Wolves has never been satisfactorily determined, and it is not yet decided whether they are all of one species, or represent various species and races. *Canis griseus* of Sabine appears to be the earliest name for the Wolves north of Mexico, preceding *Canis albus* of the same author by one page of the publication in which they both appear. If the Timber Wolves of the North American continent prove eventually to be of the same species, *Canis mexicanus* Linnæus is apparently the name by which they will be known.

Lupus ater var. E. Richard., Faun. Bor. Amer., Mamm., 1, 1829, p. 70.

Canis occidentalis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 300. (Part.) Zoöl. Ser.

ARCTIC WOLF.

Type locality. Cumberland House, N. L. 54°? Saskatchewan, Canada.

Geogr. Distr. Arctic America.

920. *Canis occidentalis* (Richardson).

Canis lupus occidentalis Richard., Faun. Bor. Amer., Mamm., 1, 1829, p. 60.

Canis occidentalis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 300. (Part.) Zoöl. Ser.

WESTERN WOLF. TIMBER WOLF.

Type locality. — ?

Geogr. Distr. Western North America, Pacific Coast to Nebraska, and from Canada to Mexico. Rare east of the Mississippi.

921. *Canis nubilus* Say.

Canis nubilus Say, Long's Exped. Rocky Mts., 1, 1823, p. 169.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 300. Zoöl. Ser.

DUSKY WOLF.

Type locality. Vicinity of Council Bluffs, Pottawattamie County, Iowa.

Geogr. Distr. Nebraska northwestward through Idaho to Puget Sound. California?

922. *Canis mexicanus* Linnaeus.

Canis mexicanus Linn., Syst. Nat., 1, 1766, p. 60. Elliot, Mamm.

Middle Amer. & W. Indies, F. C. M. Pub., 11, Pt. 11, 1904, p. 471, fig. LXII, pl. XLVI. Zoöl. Ser.

MEXICAN TIMBER WOLF. *Lobo* in Spanish America.

Type locality. Mexico.

Geogr. Distr. States of Sonora and Chihuahua, Mexico. Range unknown.

923. *Canis latrans* Say.

Canis latrans Say, Long's Exped. Rocky Mts., 1, 1823, p. 168.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 301, pl. XXIX. Zoöl. Ser.

BARKING COYOTE.

Type locality. Vicinity of Council Bluffs, Pottawattamie County, Iowa.

Geogr. Distr. Northern Valley of the Mississippi, westward on northern edge of plains to Rocky Mountains in Alberta Province, Canada.

924. *Canis lestes* Merriam.

Canis lestes Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 25. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 301. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 465. Zoöl. Ser.

ROBBER COYOTE.

Type locality. Toyabe Mountains, near Cloverdale, Nye County, Nevada.

Geogr. Distr. Northern Mexico, probably through Arizona and New Mexico to Washington and southern British Columbia.

925. *Canis nebrascensis* Merriam.

Canis pallidus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 24. (pre-occupied.)

Canis nebracensis! Merr., Science, N. Ser., VIII, 1897, p. 782. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 301. Zoöl. Ser.

NEBRASKA COYOTE.

Type locality. Johnstown, Brown County, Nebraska.

Geogr. Distr. Great Plains, eastern Colorado to Canada.

926. *Canis frustror* Woodhouse.

Canis frustror Woodh., Proc. Acad. Nat. Scien. Phil., 1851, p. 147. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 302. Zoöl. Ser.

TRICKY COYOTE.

Type locality. Fort Gibson, at junction of the Neosho and Arkansas Rivers, Indian Territory.

Geogr. Distr. Gulf region of Texas from Nueces Bay northward, and possibly through the intervening States into Oklahoma and Indian Territory.

927. *Canis mearnsi* Merriam.

Canis mearnsi Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 30. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 302. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 468. Zoöl. Ser.

MEARNS' COYOTE.

Type locality. Quitobaquita, Pima County, Arizona.

Geogr. Distr. Southern Arizona south into State of Sonora, Mexico.

928. *Canis estor* Merriam.

Canis estor Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 31. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 302. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 469. Zoöl. Ser.

NOLAND'S RANCH COYOTE.

Type locality. Noland's Ranch, San Juan River, San Juan County, Utah.

Geogr. Distr. Deserts of eastern California, Nevada, and Utah.

929. *Canis cagottis* (H. Smith).

Lyciscus cagottis H. Smith, Jard. Nat. Libr., Mamm., XVIII, 1839, p. 164.

Canis cagottis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 466. Zoöl. Ser.

SMITH'S COYOTE.

Type locality. Rio Frio, between City of Mexico and Puebla, Mexico.

Geogr. Distr. States of Mexico and Oaxaca. Range unknown.

930. *Canis peninsulæ* Merriam.

Canis peninsulæ Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 28. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 466. Zoöl. Ser.

LOWER CALIFORNIA COYOTE.

Type locality. Santa Anita, Cape St. Lucas, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California, Mexico.

931. *Canis vigilis* Merriam.

Canis vigilis Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 33. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 467. Zoöl. Ser.

COLIMA COYOTE.

Type locality. Manzanillo, State of Colima, Mexico.

Geogr. Distr. State of Colima, Mexico. Range unknown.

932. *Canis goldmani* Merriam.

Canis goldmani Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 157.

GOLDMAN'S COYOTE.

Type locality. San Vicente, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.

Genl. Char. Size large; muzzle broad; frontals deeply sulcate; bullæ very large, flattened on outer side; teeth large, except lower carnassial, which is smaller than that of *C. cagottis*.

Color. Muzzle, top of head, ears, and legs fulvous; face grizzled grayish fulvous; back grizzled buffy gray and fulvous; under fur pale fulvous.

Measurements. Total length, 1,220; tail vertebræ, 355; hind foot, 216.

933. *Canis clepticus* Elliot.

Canis clepticus Elliot, Pub. Field Columb. Mus., III, 1903, p. 225.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 467. Zoöl. Ser.

THIEVISH COYOTE.

Type locality. Vallecitos, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 9,000 feet.

Geogr. Distr. San Pedro Martir Mountains, Lower California, Mexico.

934. *Canis impavidus* Allen.

Canis impavidus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 609. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 468. Zoöl. Ser.

BOLD COYOTE.

Type locality. Rio del Bocas, State of Durango, Mexico. Altitude, 7,000 feet.

Geogr. Distr. State of Durango, Mexico. Range unknown.

935. *Canis microdon* Merriam.

Canis microdon Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 29.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 469. Zoöl. Ser.

TAMAULIPAS COYOTE.

Type locality. Mier, on the Rio Grande, State of Tamaulipas, Mexico.

Geogr. Distr. State of Tamaulipas, Mexico. Range unknown.

936. *Canis ochropus* Eschscholtz.

Canis ochropus Eschsch., Zool. Atlas, III, 1829, pp. 1-2, pl. II.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 303.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 469. Zoöl. Ser.

OCHRACEOUS-FOOTED COYOTE.

Type locality. California.

Geogr. Distr. San Joaquin Valley, California, south into Lower California, Mexico.

Genus 115. **Vulpes. Red Foxes.**

- Vulpes** Frisch, Natur. Syst. vierfüß. Thiere, in Tabellen, Tab. Gen., 1775. Type *Canis vulpes* Linnæus.
Leucocyon Gray, Proc. Zool. Soc., 1868, p. 521.

936a. Vulpes harrimani Merriam.

- Vulpes harrimani* Merr., Proc. Wash. Acad. Scien., 1900, p. 14.
 Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 303.
 Zool. Ser.

HARRIMAN'S FOX.

- Type locality. Kadiak Island, Alaska.
 Geogr. Distr. Only known from Kadiak Island.

937. Vulpes fulva (Desmarest).

- Canis fulvus* Desm., Mamm., I, 1820, p. 203.
Canis decussatus Desm., Mamm., I, 1820, p. 203. (Cross Fox.)
Vulpes pennsylvanica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 304. Zool. Ser.

RED FOX.

- Type locality. Virginia.
 Geogr. Distr. Canadian boundary to Georgia, westward to the Great Plains.

a. Vulpes fulva argentata (Shaw).

- Canis argentatus* Shaw, Gen. Zool., I, 1800, p. 325.
Vulpes pennsylvanica argentata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 304. Zool. Ser.

SILVER FOX. BLACK FOX.

- Type locality. Louisiana!
 Geogr. Distr. Boreal regions of North America.

b. Vulpes fulva macroura (Baird).

- Vulpes macrourus* Baird, Stansb. Expl. Great Salt Lake, Utah, 1852, p. 309.
Vulpes pennsylvanica macroura Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 305. Zool. Ser.

LONG-TAILED FOX.

- Type locality. Wasatch Mountains, near Great Salt Lake, Utah.
 Geogr. Distr. Nebraska to California south to Arizona and Oklahoma Territory.

c. Vulpes fulva rubricosa (Bangs).

- Vulpes pennsylvanica vafra* Bangs, Proc. Biol. Soc. Wash., XI, 1897, p. 53. (nec *V. vafra* Leidy.)
Vulpes pennsylvanica rubricosa Bangs, Scien., N. S., VII, 1898, p. 272. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 305. Zool. Ser.

REDDISH FOX.

Type locality. Digby, Nova Scotia, Canada.

Geogr. Distr. Nova Scotia. Range unknown.

d. *Vulpes fulva bangsi* (Merriam).

Vulpes rubricosa bangsi Merr., Proc. Wash. Acad. Scien., II, 1900, p. 667.

Vulpes pennsylvanica bangsi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 434. Zoöl. Ser.

BANGS' RED FOX.

Type locality. Lance au Loup, Strait of Belle Isle, Labrador.

Geogr. Distr. Labrador.

938. *Vulpes alascensis* Merriam.

Vulpes alascensis Merr., Proc. Wash. Acad. Scien., II, 1900, p. 668.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 434. Zoöl. Ser.

ALASKA RED FOX.

Type locality. Andreafski, near mouth of the Yukon River, Alaska.

Geogr. Distr. Northern Alaska.

a. *Vulpes alascensis abietorum* Merriam.

Vulpes alascensis abietorum Merr., Proc. Wash. Acad. Scien., II, 1900, p. 669. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 434. Zoöl. Ser.

FIR-WOOD FOX.

Type locality. Stuart Lake, British Columbia, Canada.

Geogr. Distr. Interior of British Columbia, Canada, and probably northeastern Alaska.

939. *Vulpes deletrix* Bangs.

Vulpes deletrix Bangs, Proc. Biol. Soc. Wash., XII, 1898, p. 36.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 305. Zoöl. Ser.

DESTRUCTIVE FOX.

Type locality. Bay St. George, Newfoundland.

Geogr. Distr. Newfoundland. Labrador?

940. *Vulpes necator* Merriam.

Vulpes necator Merr., Proc. Wash. Acad. Scien., II, 1900, p. 664.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, Append., p. 433. Zoöl. Ser.

MURDERING FOX.

Type locality. Whitney Meadows, near Mount Whitney, Tulare County, California. Altitude, 9,500 feet.

Geogr. Distr. High Sierra, southern California.

941. *Vulpes cascadenis* Merriam.

Vulpes cascadenis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 665. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 433. Zool. Ser.

CASCADE MOUNTAINS FOX.

Type locality. Trout Lake, south base of Mt. Adams, Cascade Mountains, Skamania County, Washington.

Geogr. Distr. Cascade Range in Washington and Oregon, and northern Sierra in California.

942. *Vulpes regalis* Merriam.

Vulpes regalis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 672. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 432. Zool. Ser.

ROYAL FOX.

Type locality. Elk River, Sherburn County, Minnesota.

Geogr. Distr. Northern Plains from Dakota to Alberta; east of Manitoba and Minnesota. Range limits unknown.

943. *Vulpes kenaiensis* Merriam.

Vulpes kenaiensis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 670. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 432. Zool. Ser.

KENAI FOX.

Type locality. Kenai Peninsula, Alaska.

Geogr. Distr. Kenai Peninsula. Range unknown.

944. *Vulpes hallensis* Merriam.

Vulpes hallensis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 15. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 307. Zool. Ser.

HALL ISLAND FOX.

Type locality. Hall Island, Bering Sea, Alaska.

Geogr. Distr. Known only from Hall Island.

***Vulpes lagopus innuitus* Merriam.**

Vulpes lagopus innuitus Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 170.

SUMMIT ARCTIC FOX.

Type locality. Karogar River, Point Barrow, Alaska.

Geogr. Distr. Alaska to Baffin Bay, Arctic America.

Genl. Char. Braincase broader and more pyriform than that of *V. lagopus*, and tapering more abruptly behind broadest part.

Color. Like that of *V. lagopus*.

Measurements. Skull: basal length, 117; zygomatic width, 69; palatal length, 56; rostrum width at second premolar, 23.5; length of upper carnassial, 12.5; transverse diameter in outer side, 10.

Vulpes lagopus ungava Merriam.

Vulpes lagopus ungava Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 170.

UNGAVA ARCTIC FOX.

Type locality. Fort Chimo, Ungava, Labrador.

Geogr. Distr. Labrador.

Genl. Char. Similar to *V. l. innuitus*, but slightly larger; "rostrum longer; frontal shield less flat; postorbital processes more pointed and less deeply excavated posteriorly; under jaw broader vertically and deeply bellied under sectorial."

Color. Like "*V. l. innuitus* and *V. lagopus*."

Measurements. Skull: basal length, 118; zygomatic breadth, 70; palatal length, 63; post palatal length, 55; width of rostrum at second premolar, 26; length of upper carnassial, 12.5; length of upper molar, 9.5.

945. *Vulpes pribilofensis* Merriam.

Vulpes pribilofensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 171.

PRIBILOF ISLAND ARCTIC FOX.

Type locality. St. George Island, Pribilof Islands, Bering Sea.

Geogr. Distr. St. George and St. Paul Islands, Pribilof Island, Bering Sea.

Genl. Char. Size large. Skull elongate; frontals narrow; postorbital processes slightly developed; braincase long and flat; sagittal crest well developed; teeth as in *V. l. innuitus*.

Measurements. Skull: basal length, 127; zygomatic breadth, 72; palatal length, 66; postpalatal length, 61; width of rostrum at second premolar, 25; length of upper carnassial, 12.5; transverse diameter of first upper molar, 9.5.

946. *Vulpes beringensis* Merriam.

Vulpes beringensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 171.

BERING ISLAND ARCTIC FOX.

Type locality. Bering Island, Bering Sea.

Genl. Char. Size large. Rostrum broad, massive; frontals high anteriorly and swollen on each side of median sulcus; premolars large and swollen.

Color. Not given.

Measurements. Skull: basal length, 123; zygomatic breadth, 71; palatal length, 66; postpalatal length, 56; width of rostrum at second premolar, 27.

947. *Vulpes velox* (Say).

Canis velox Say, in Long's Exped. Rocky Mts., I, 1823, p. 487.

Canis cinereo-argentatus Sabine, Frankl. Narr. Journ. Polar Sea, 1823, p. 658.

Canis microtus Reichenb., Wagn. in Weigm. Archiv, III, 1837; II, p. 162.

Vulpes velox Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 306. Zoöl. Ser.

SWIFT FOX.

Type locality. Vicinity of Cherry Creek, Laramie County, Wyoming.

Geogr. Distr. Colorado and Nebraska north to the plains of the Saskatchewan, Assiniboia, Canada.

a. *Vulpes velox hebes* Merriam.

Vulpes velox hebes Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 73.

SLUGGISH FOX.

Type locality. Calgary, Alberta, Canada.

Geogr. Distr. Range unknown.

Genl. Char. Like *V. velox*, but larger and grayer. Skull larger, palate longer; mandible longer, heavier, more bellied under sectorial; coronoid process higher.

Measurements. Total length, 844; tail vertebræ, 312; hind foot, 130.

948. *Vulpes macrotis* Merriam.

Vulpes macrotis Merr., Proc. Biol. Soc. Wash., iv, 1888, p. 135.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 306.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 473, figs. 86, LXIII. Zoöl. Ser.

LARGE-EARED KIT FOX.

Type locality. Riverside, San Bernardino County, California.

Geogr. Distr. Southern California, south to States of Sonora and Chihuahua and Lower California, Mexico.

a. *Vulpes macrotis neomexicana* Merriam.

Vulpes macrotis neomexicanus! Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 74.

NEW MEXICAN KIT FOX.

Type locality. San Andreas Range (about fifty miles north of El Paso, Texas), Donna Ana County, New Mexico.

Geogr. Distr. New Mexico and Arizona. Range unknown.

Genl. Char. Like *V. macrotis* but larger. Skull heavier, broader; rostrum thicker; frontals broader; zygomata more spreading; bullæ larger, with anteriorly projecting point on inner side; lower jaw decidedly heavier and more bellied; coronoid process higher.

Measurements. Total length, 820; tail vertebræ, 300; hind foot, 135.

949. *Vulpes mutica* Merriam.

Vulpes muticus! Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 74.

CURTAILED FOX.

Type locality. Tracy, San Joaquin Valley, San Joaquin County, California.

Genl. Char. Similar to *V. macrotis*, but larger; hind foot and tail longer; chin and under lip blacker; top of head and middle of back with more reddish brown showing through the grayish tips; outer side of hind feet more fulvous; top of hind foot less white; pectoral collar more pronounced; black tip of tail less extensive on under side. Skull larger, broader, and more massive; under jaw much heavier and more deeply bellied under sectorial and last premolar; carnassial teeth and molars larger and much heavier; premolars thicker, but not otherwise larger.

Measurements. Total length, 950; tail vertebræ, 350; hind foot, 123. (Merr. l. c.)

950. *Vulpes arsipus* Elliot.

Vulpes arsipus Elliot, Pub. Field Columb. Mus., III, 1903, p. 256.

Zoöl. Ser.

SWIFT-FOOTED KIT FOX.

Type locality. Daggett, Mohave Desert, San Bernardino County, California.

Geogr. Distr. Southern California. Range unknown.

Genl. Char. Similar to *V. macrotis* but paler and smaller; post-orbital processes longer; pterygoid fossa narrower.

Color. Top of head mixed gray and brownish fulvous, darker than the back; upper parts of body pale grizzled gray; sides paler grading into buff; outer sides of fore legs and thighs, and down outside of hind legs to the toes, pale fulvous; narrow pectoral collar pale fulvous; black patch on side of nose from eye, and one on either side of chin; postocular stripe of brown; under parts, inner side of thighs and front of hind legs whitish; tail above pale gray tinged with buff, beneath buffy, tip brownish black; ears externally pale cinnamon and narrowly edged with white.

Measurements. Total length, 810; tail vertebræ, 310; hind foot, 128; ear from notch, 86. Skull: occipito-nasal length, 103; Hensel, 104; zygomatic width, 61; interorbital constriction, 20.5; across postorbital processes, 28; palatal length, 56; length of nasals, 39; length of upper molar series, 44; length of mandible, 82.5; length of lower molar series, anterior edge of first premolar to posterior edge of last molar, 47.5.

Genus 116. **Urocyon.**

Urocyon Baird, N. Am. Mamm., 1857, p. 121. Type *Canis virginianus* Erxleben = *Canis cinereo-argenteus* Müller.

951. Urocyon cinereo-argenteus (Müller).

Canis cinereoargenteus Müll., Natur. Suppl., 1776, p. 29. (Desc.)

Canis cinereoargenteus Schreb., Säugth., III, 1776, p. 361, pl. XCII, 1775.

Canis virginianus Erxl., Syst. Regn. Anim., 1777, p. 567.

Canis griseus Bodd., Elench. Anim., I, 1784, p. 97.

Urocyon cinereo-argenteus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 307. Zoöl. Ser.

GRAY FOX.

Type locality. Eastern North America. Exact place unknown.

Geogr. Distr. Eastern North America from Georgia north to New England States, west to Mississippi Valley.

a. Urocyon cinereo-argenteus floridanus Rhoads.

Urocyon cinereo-argenteus floridanus Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 42. Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 307. Zoöl. Ser.

FLORIDA GRAY FOX.

Type locality. Tarpon Springs, Hillsboro County, Florida.

Geogr. Distr. Florida generally, north into Georgia where it interbreeds with *U. cinereo-argenteus*.

b. Urocyon cinereo-argenteus scotti Mearns.

Urocyon cinereo-argenteus scotti Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 236. Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 308, pl. xxxi. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II,

1904, p. 477. Zoöl. Ser.

SCOTT'S GRAY FOX.

Type locality. Pinal County, Arizona.

Geogr. Distr. Southern California, Arizona, New Mexico, and northern Mexico. State of Chihuahua.

c. Urocyon cinereo-argenteus texensis Mearns.

Urocyon cinereo-argenteus texensis Mearns, Proc. U. S. Nat. Mus., XX, 1897, p. 459. Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 308. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 478. Zoöl. Ser.

TEXAS GRAY FOX.

Type locality. San Pedro, near Eagle Pass, Maverick County, Texas.

Geogr. Distr. Texas.

d. *Urocyon cinereo-argenteus californicus* Mearns.

Urocyon cinereo-argenteus californicus Mearns, Proc. U. S. Nat. Mus., xx, 1897, p. 459. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 308. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 477. Zoöl. Ser.

CALIFORNIA GRAY FOX.

Type locality. San Jacinto Mountains, Riverside County, California. Altitude, 8,000 feet.

Geogr. Distr. Washington south into Lower California.

e. *Urocyon cinereo-argenteus townsendi* (Merriam).

Urocyon californicus townsendi Merr., N. Am. Faun., No. 16, 1899, p. 103.

Urocyon cinereo-argenteus townsendi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 309. Zoöl. Ser.

TOWNSEND'S GRAY FOX.

Type locality. Baird, Shasta County, California.

Geogr. Distr. Known only from the type locality.

f. *Urocyon cinereo-argenteus inyoensis* Elliot.

Urocyon cinereo-argenteus inyoensis Elliot, Pub. Field Columb. Mus., III, 1904, p. 268. Zoöl. Ser.

INYO MOUNTAINS GRAY FOX.

Type locality. Beveridge Cañon, Inyo Mountains, Inyo County, California.

Geogr. Distr. Southern California. Range unknown.

Genl. Char. Paler than *U. c. californicus*; no ochraceous lines; black on lower back only.

Color. Upper parts, sides, and breast silvery gray, with black streaks on lower part of back; chin and nose above black; sides of neck and bar across lower part of neck buff; fore legs silvery gray above, wood brown on outer side and whitish on inner side; hind legs silvery gray above, drab gray on outer side, and whitish on inner side; under parts white; tail silvery gray slightly tinged in places with buff, and with a black line curving around it; ears brownish mixed with silver white hairs on the outside; inside white; head back of ears buffy.

Measurements. Total length, 950; tail vertebræ, 385; hind foot, 140; ear, 82. Skull: total length, 124; occipito-nasal length, 118;

Hensel, 118; zygomatic width, 66; interorbital width, 23.5; palatal length, 56; palatal arch to tip of pterygoid process, 20; anterior width of pterygoid fossa, 9; posterior width of basioccipital, 13; length of nasals, 40; length of upper tooth row, anterior edge of canines to posterior edge of last molar, 51; length of lower tooth row, 57; length of mandible, 88.

g. *Urocyon cinereo-argenteus ocythous* Bangs.

Urocyon cinereo-argenteus ocythous Bangs, N. Engl. Zool. Club, 1, 1899, p. 43. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 309. Zool. Ser.

SWIFT GRAY FOX.

Type locality. Platteville, Grant County, Wisconsin.

Geogr. Distr. Upper Mississippi Valley.

h. *Urocyon cinereo-argenteus borealis* Merriam.

Urocyon cinereo-argenteus borealis Merr., Proc. Biol. Soc. Wash., XVI, 1903, p. 74.

NEW ENGLAND GRAY FOX.

Type locality. Marlboro, seven miles from Monadnock, Cheshire County, New Hampshire.

Genl. Char. Larger than *U. cinereo-argenteus*. Skull with longer nasals, more slender posteriorly; palate and pterygoid fossa broader; last upper molar and fourth lower premolar, large.

Color. Like *U. cinereo-argenteus*.

Measurements. Skull: basal length, 126; Hensel 118.5; zygomatic width, 73; palatal length, 63; postpalatal length, 55; front of canine to back of last upper molar, 56.

i. *Urocyon cinereo-argenteus littoralis* (Baird).

Vulpes (Urocyon) littoralis Baird, N. Am. Mamm., 1857, p. 143.

Urocyon cinereo-argenteus littoralis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Suppl., p. 507. Zool. Ser.

SAN MIGUEL ISLAND GRAY FOX.

Type locality. San Miguel Island, Santa Barbara Islands, Santa Barbara County, California.

Geogr. Distr. Known only from San Miguel Island.

j. *Urocyon cinereo-argenteus santacruzæ* (Merriam).

Urocyon littoralis santacruzæ Merr., Proc. Biol. Soc. Wash., XVI, 1903, p. 75.

SANTA CRUZ ISLAND GRAY FOX.

Type locality. Santa Cruz Island, Santa Barbara Islands, Santa Barbara County, California.

Geogr. Distr. Known from type locality only.

Genl. Char. Like *U. c. littoralis*. Skull smaller, nasals narrower tapering posteriorly; frontal spines long; rostrum narrower; bullæ smaller, inflated; basioccipital and upper carnassial narrower.

Measurements. Average of 3. Total length, 708; tail vertebrae, 266; hind foot, 109. (Merr. l. c.)

k. Urocyon cinereo-argenteus guatemalæ (Miller).

Urocyon guatemalæ Miller, Proc. Acad. Nat. Scien. Phil., 1899, p. 278.

Urocyon cinereo-argenteus guatemalæ Elliot, Mamm. Middle Amer.

& W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 475. Zoöl. Ser.

GUATEMALAN GRAY FOX.

Type locality. Nentón, Guatemala.

Geogr. Distr. Tropical region of Guatemala and State of Chiapas, Mexico.

l. Urocyon cinereo-argenteus fraterculus Elliot.

Urocyon cinereo-argenteus fraterculus Elliot, Pub. Field Columb.

Mus., I, 1896, p. 80. Zoöl. Ser. *Id.* Mamm. Middle Amer. &

W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 475, figs. 87,

LXIV. Zoöl. Ser.

LITTLE GRAY FOX.

Type locality. San Felipe, Yucatan.

Geogr. Distr. Yucatan, Tehuantepec, Mexico. Range unknown.

m. Urocyon cinereo-argenteus parvidens (Miller).

Urocyon parvidens Miller, Proc. Acad. Nat. Scien. Phil., 1899,

p. 276.

Urocyon cinereo-argenteus parvidens Elliot, Mamm. Middle Amer.

& W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 476. Zoöl. Ser.

SMALL-TOOTHED FOX.

Type locality. Merida, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico. Range unknown.

952. *Urocyon catalinæ* Merriam.

Urocyon catalinæ Merr., Proc. Biol. Soc. Wash., XVI, 1903, p. 74.

SANTA CATALINA ISLAND GRAY FOX.

Type locality. Santa Catalina Island, Santa Barbara Islands, Santa Barbara County, California.

Geogr. Distr. Santa Catalina Island only.

Genl. Char. Similar to *U. c. littoralis*, but nasals narrower, and not constricted in the middle, but broad posteriorly and obliquely truncated; frontal spines short.

Color. Like *U. c. littoralis*.

Measurements. Total length, 795; tail vertebrae, 298; hind foot, 112.

953. *Urocyon clementæ* Merriam.

Urocyon clementæ Merr., Proc. Biol. Soc. Wash., xvi, 1903, p. 75.
SAN CLEMENTE ISLAND GRAY FOX.

Type locality. San Clemente Island, Santa Barbara Islands, Santa Barbara County, California.

Geogr. Distr. San Clemente Island only.

Genl. Char. Similar to *U. c. littoralis*, but smaller; nasals broadest in the middle, tapering posteriorly; bullæ more inflated; carnassial and molars small.

Color. Like *U. c. littoralis*.

Measurements. Average of 6. Total length, 688; tail vertebrae, 250; hind foot, 100. (Dry skin.) (Merr. l. c.)

Family IV. **Ursidae. Bears.**

Subfamily I. **Ursinae.**

Genus 117. **Ursus.**

Ursus Linn., Syst. Nat., i, 1758, p. 47; i, 1766, p. 69. Type *Ursus arctos*! Linnæus.

Davis Gray, in Thoms. Ann. of Phil., xxvi, 1825, pp. 60, 339.

Thalarchos! Gray, in Thoms. Ann. of Phil., xxvi, 1825, p. 62.

Thalassarchos! Gray, in Thoms. Ann. of Phil., xxvi, 1825, p. 339.

Euarctos! Gray, Proc. Zool. Soc., 1864, p. 692.

Subgenus A. **Thalassarctus. Polar Bear.**

954. *Ursus maritimus* Phipps.

Ursus maritimus Phipps, Voy. N. Pole, 1774, p. 185. Elliot, Syn.

N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 310, pl. xxxii.

Zool. Ser.

POLAR BEAR.

Type locality. Spitzbergen.

Geogr. Distr. Arctic regions of both hemispheres.

Subgenus B. **Ursus. Brown Bears.**

955. *Ursus middendorffi* Merriam.

Ursus middendorffi Merr., Proc. Biol. Soc. Wash., x, 1896, p. 69.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 310.

Zool. Ser.

MIDDENDORFF'S BROWN BEAR.

Type locality. Kadiak Island, Alaska.

Geogr. Distr. Kadiak Island, Alaskan Peninsula, Kenai Peninsula, Prince William Sound, Sushitna, and Kuik River regions and the Alaska Mountains, Alaska.

956. *Ursus kidderi* Merriam.

Ursus kidderi Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 78.

KIDDER'S BROWN BEAR.

Type locality. Chinitna Bay, Cook Inlet, Alaska.

Geogr. Distr. Unknown.

Genl. Char. Size large; claws rather short. Skull large, massive; lacrymal large, high, reaching to maxillary protuberance on inner side of orbit; teeth comparatively small; lower sectorial rectangular, two cusps only on inner side of heel of last upper molar.

Color. Yellowish brown, darkest on belly and legs. June.

Measurements. Skull: basal length, 301; occipito-sphenoid length, 82; length of upper molar series, 74; length of lower molar series, 70; width across upper incisors, 44.

957. *Ursus dalli* Merriam.

Ursus dalli Merr., Proc. Biol. Soc. Wash., x, 1896, p. 71, figs. 8, 9, pl. v, fig. 1; pl. vi, fig. 5. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 311. Zool. Ser.

Ursus sitkensis Merr., Proc. Biol. Soc. Wash., x, 1896, p. 73, pl. vi, fig. 1; pl. v, fig. 3.

DALL'S BROWN BEAR.

Type locality. Yakutat Bay, Alaska.

Geogr. Distr. Coast region between Baranof Island and Copper River, Alaska.

a. *Ursus dalli gyas* Merriam.

Ursus dalli gyas Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 78.

Ursus merriami Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 141.

GIANT BROWN BEAR.

Type locality. Pavlof Bay, Alaska Peninsula, Alaska.

Geogr. Distr. Unknown.

Genl. Char. Similar to *U. dalli* but larger; postpalatal region longer; frontals and vault of cranium higher, less flat; rostrum longer, more elevated; anterior nares larger, higher; teeth larger; heel of last upper molar cut off obliquely on outer side.

Measurements. Skull: basal length, 390; zygomatic breadth, 285; palatal length, 212; postpalatal length, 177; occipito-sphenoid length, 112.

958. *Ursus eulophus* Merriam.

Ursus eulophus Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 153.

ADMIRALTY ISLAND BROWN BEAR.

Type locality. Admiralty Island, southeastern Alaska.

Geogr. Distr. Unknown.

Genl. Char. Size large. Skull: sagittal crest high anteriorly; frontals much elevated posteriorly, rather narrow interorbitally; frontal shield long and high, sloping strongly upward from anterior third of nasals almost to fronto-parietal suture; braincase narrowed anteriorly; rostrum rather narrow; maxillæ long, reaching to beyond plane of nasals; interpterygoid fossa long and narrow; molars large; lower carnassial slender.

Measurements. None given!

959. **Ursus kenaiensis* Merriam.

Ursus kenaiensis Merr., Proc. Biol. Soc. Wash., xvii, 1902, p. 154.

KENAI PENINSULA BROWN BEAR.

Type locality. Cape Elizabeth, west end of Kenai Peninsula.

Geogr. Distr. Unknown.

Genl. Char. Size large. Skull broad, flat, and massive, with broad rostrum; zygomata wide; jugal broad anteriorly; frontals depressed, low posteriorly; postorbital large, projecting outwardly; palate very broad; nasals broad; anterior nares rather small; canines small; incisors and molars large.

Measurements. None given!

Subgenus C. **Danis.** Grizzly Bears.

960. *Ursus horribilis* Ord.

Ursus horribilis Ord, Guthr. Geog., 2d Amer. ed., II, 1815, p. 291, desc. p. 299. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 312, pl. XXXIII. Zool. Ser.

Ursus horribilis californicus Merr., Proc. Biol. Soc. Wash., x, 1896, p. 76.

GRIZZLY BEAR.

Type locality. Montana.

Geogr. Distr. California, and Rocky Mountains north of Wyoming and Utah. British Columbia to Alaska.

*The specific values of the Brown Bears of Alaska cannot be considered as satisfactorily established. The roaming habits of these animals frequently cause them to travel very great distances, even swimming wide rivers and estuaries of the sea. It is not probable, therefore, that closely allied animals, as are all those heretofore described, would be able to maintain their distinctive characters, as they must at certain seasons mingle promiscuously together, and bears, like pigs, are not particular in their choice of a mate. Great variations in skulls and in size of individuals occur among all bears. It is most probable that when these forms are treated monographically with ample materials, the number of species and races will be conspicuously reduced.

a. Ursus horribilis alascensis Merriam.

Ursus horribilis alascensis Merr., Proc. Biol. Soc. Wash., x, 1896,
p. 74. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 312. Zoöl. Ser.

ALASKAN GRIZZLY BEAR.

Type locality. Norton Sound, Alaska.

Geogr. Distr. Not determined.

b. Ursus horribilis horriæus Baird.

Ursus horribilis var. *horriæus* Baird, Rep. Mex. Bound. Surv., II,
Pt. II, 1859, p. 24.

Ursus horribilis horriæus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., II, 1901, p. 312. Zoöl. Ser.

Ursus horriæus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 480, fig. LXV, pl. XLVII. Zoöl. Ser.

MEXICAN GRIZZLY BEAR.

Type locality. Los Nogales, State of Sonora, Mexico, near border
of Pima County, Arizona.

Geogr. Distr. Northern Mexico and southern New Mexico.
Range undetermined.

c. Ursus horribilis phæonyx Merriam.

Ursus horribilis phæonyx Merr., Proc. Biol. Soc. Wash., XVII, 1904,
p. 154.

DARK-CLAWED GRIZZLY BEAR.

Type locality. Comet Creek, a tributary of Forty Mile Creek,
near Eagle, Alaska.

Geogr. Distr. Unknown.

Genl. Char. "Similar to *U. horribilis*, but claws shorter, more
strongly curved (!) and dark blue black. Ears rather short and
densely haired on both sides. Skull: zygomata more spreading, muz-
zle broader, shorter, canines heavier, incisors larger."

Color. Back and legs very dark brown, almost blackish brown;
unworn tips of hairs on back grizzled; under parts and muzzle pale
brown.

Measurements. "Middle claw of fore foot, over curve, 93; top of
base to tip, 75; bottom of base to tip, 55.

961. *Ursus richardsoni* Swainson.

Ursus richardsoni Swainson, Anim. Menag., 1838, p. 54. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 313. Zoöl. Ser.

BARREN GROUND GRIZZLY BEAR.

Type locality. Shore of the Arctic Ocean, Mackenzie, Canada.

Geogr. Distr. Barren Ground between Hudson Bay and Mackenzie

River, hilly regions east and north of Great Bear Lake; lower Rocky Mountains west of the Mackenzie; possibly to the upper tributaries of the Yukon.

Subgenus D. *Euarctus*. Black Bears.

962. *Ursus americanus* Pallas.

Ursus americanus Pallas, Spicileg. Zool., fasc. xiv, 1780, p. 5.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 313, pl. xxxiv. Zool. Ser.

AMERICAN BLACK BEAR.

Type locality. Eastern North America.

Geogr. Distr. North America, eastern part, where forests are found, except in Louisiana, Florida, and Labrador.

a. *Ursus americanus sornborgeri* Bangs.

Ursus americanus sornborgeri Bangs, Amer. Nat., xxxii, 1898, p. 500. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 314. Zool. Ser.

SORNBORGER'S BLACK BEAR.

Type locality. Okak, Labrador.

Geogr. Distr. Labrador north to the limit of trees.

b. *Ursus americanus carlottæ* (Osgood).

Ursus carlottæ Osgood, N. Am. Faun., No. 21, 1901, p. 30, pl. iv, fig. 1.

QUEEN CHARLOTTE ISLANDS BLACK BEAR.

Type locality. Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada.

Geogr. Distr. Queen Charlotte Islands, British Columbia, Canada.

Genl. Char. Skull longer than that of *U. americanus*; rostrum more slender; cranium less arched; teeth larger and heavier; heel of last molar elongate.

Color. Black? Skull only known.

Measurements. Skull: basilar length, 282; palatal length, 155; postpalatal length, 127; zygomatic width, 193; width across post-orbital processes, 116; length of nasals, 82.

c. **Ursus americanus eremicus* Merriam.

Ursus americanus eremicus Merr., Proc. Biol. Soc. Wash., xvii, 1904, p. 154.

*Dr. Merriam compares this type specimen with *Ursus amblyceps* Baird. As I have already shown, Pub. Field Columb. Mus., III, 1903, p. 235, Zool. Ser., this name of Baird's, as it represents no characters whatever, is a nomen nudum, and cannot be used. Baird had only a flat skin of a cinnamon bear, and no skull, and was unable to give any recognizable description.

DESERT BLACK BEAR.

Type locality. Sierra Guadalupe, State of Coahuila, Mexico.

Geogr. Distr. State of Coahuila, Mexico, possibly north to Davis Mountain, Texas.

Genl. Char. Frontals depressed, flat; nasals nearly straight; rostrum slender anteriorly; naked nose pad very long.

Color. Black; the under fur dark brown; muzzle dark brown.

Measurements. Total length, 1.290; tail vertebræ, 66; hind foot, 210.

963. *Ursus floridanus* Merriam.

Ursus floridanus Merr., Proc. Biol. Soc. Wash., x, 1896, p. 81.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 314.

Zoöl. Ser.

FLORIDA BLACK BEAR.

Type locality. Key Biscayne, Dade County, Florida.

Geogr. Distr. Everglades of Florida.

964. *Ursus luteolus* Griffith.

Ursus luteolus Griffith, Carniv. Anim., 1821, p. 236. Elliot, Syn.

N. Am. Mamm., F. C. M. Pub., II, 1901, p. 314. Zoöl. Ser.

LOUISIANA BLACK BEAR.

Type locality. Louisiana.

Geogr. Distr. Louisiana to Texas. Range undetermined.

965. *Ursus altifrontalis* Elliot.

Ursus altifrontalis Elliot, Pub. Field Columb. Mus., III, 1903, p. 234.

NORTHWESTERN BLACK BEAR.

Type locality. Shore of Lake Crescent, Clallam County, Washington.

Geogr. Distr. Washington. Range unknown.

Genl. Char. Skull: forehead very broad and high, bulging on the sides anteriorly, rounded above; nasals long, broad, elevated posteriorly and extending considerably beyond the ends of the maxillæ; outline of skull above convex, highest at anterior portion of frontals; occipital crest prominent; zygomatic widely spread; basioccipital and basisphenoid very broad, the latter rounded anteriorly; pterygoid fossa short; muzzle broad, heavy, greatly swollen at base of canines.

Color. Black; nose tan color

Measurements. Skull: total length, 300; occipito-nasal length, 287; zygomatic width, 190; interorbital constriction, 75; width across postorbital processes, 106; length of nasals, 80; width of nasals anteriorly, 32; palatal length, 138; width of palate at posterior end

of last molar, 47; at anterior end of first molar, 45; at posterior edge of canines, 40; breadth of muzzle at outer sides of canines, 68; greatest breadth of basioccipital, 49; of basisphenoid, 30; palatal arch to end of pterygoid, 50; length of crown of last molar, 27; width, 15; from anterior edge of canine to posterior edge of last molar, alveolar border, 100; length of mandible from angle to symphysis on top, 202; height at condyle, 32; at coronoid process, 86; length of lower molar series, alveolar border, 66.

966. *Ursus hylodromus* Elliot.

Ursus hylodromus Elliot, Pub. Field Columb. Mus., III, 1903, p. 257.

Zoöl. Ser.

ALBERTA BLACK BEAR.

Type locality. Alberta, Canada.

Genl. Char. Skull: forehead prominent, elevated above the face; highest part of braincase anterior to line from the roots of the zygomata; width across postorbital processes very considerable; nasals concave in outline, posterior ends elevated; braincase greatly swollen on sides outward; zygomatic arches moderately expanded; narial opening very large; occipital crest prominent; bullæ wider than long; tubular meatus elongate and narrow; pterygoid fossa broad, narrowest anteriorly at palatal arch; the pterygoid processes broad and turned inward at their tips; palate of equal width to last molar where it narrows gradually to the pterygoid fossa; mandible very heavy, upper end of coronoid process curving downward forming a hook.

Measurements. Skull: total length, 312; occipito-nasal length, 257; Hensel, 270; zygomatic width, 173; width across postorbital processes, 96; between orbits, 69; greatest width of braincase, 102; length of nasals, 76; width of basioccipital, 47; of basisphenoid, 36; length of pterygoid fossa, 46; posterior width at processes, 24; palatal length, 153; width between last molars, 45; length of upper molars, alveolar border, 67; length of mandible, 217; depth at center of second molar, 37.5; height at coronoid process, 88; breadth of coronoid process at hook, 40; beneath hook, 41; length of three lower molars, alveolar border, 65.

967. *Ursus machetes* Elliot.

Ursus machetes Elliot, Pub. Field Columb. Mus., III, 1903, p. 235.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 481, pls. XLVIII, XLIX. Zoöl. Ser.

FIGHTING BEAR.

Type locality. Casas Grandes, Sierra Madre, State of Chihuahua, Mexico.

Geogr. Distr. Northern Mexico.

968. Ursus emmonsii (Dall).

Ursus americanus var. *emmonsii* Dall, Science, N. S., II, 1895, p. 87.

Ursus emmonsii Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 315. Zoöl. Ser.

EMMONS' GLACIER BEAR.

Type locality. Saint Elias Alps, near Yakutat Bay, Alaska.

Geogr. Distr. Saint Elias range of mountains southeasterly to Juneau. Exact range unknown.

969. Ursus kermodei Hornaday.

Ursus kermodei Hornaday, 9th Ann. Rept. N. York Zoöl. Soc., 1905, p. 6.

INLAND WHITE BEAR.

Type locality. Gribble Island, Lat. $53^{\circ} 25'$, Long. 129° W., British Columbia, Canada.

Geogr. Distr. District south of Skeena River to Rivers Inlet and Kitimat Arm, Gribble Island, British Columbia, Canada. The distribution only imperfectly known.

Genl. Char. Size small; color white.

Color. Clear creamy white down to the roots of the hair; the cream tint deepest on head, upper neck, and fore legs.

Measurements. Skin. Total length, 1384.3; ear, 76.2; Skull: length of "molar tooth row, including large premolar," 45.4.

Family V. Procyonidae. Raccoons, Coatis, etc.**Subfamily I. Procyoninae.****Genus 118. Bassariscus.**

Bassariscus Coues, Science, IX, 1887, p. 516. *Type Bassaris astuta* Lichtenstein.

Bassariscus Licht., Isis, 1831. (nec Hübner, 1816.)

Wagneria Jentink, Notes Leyden Mus., VIII, 1886, p. 129.

970. Bassariscus astutus (Lichtenstein).

Bassariscus astutus Licht., Isis, XXIV, 1831, p. 513.

Bassariscus astutus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 316. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. II, p. 484, figs. 88 and LXVI.

Zoöl. Ser.

COMMON RACCOON-FOX. *Cacomistl* in Mexico. *Cat Squirrel* in Texas.

Type locality. Southern Mexico.

Geogr. Distr. California through Arizona, New Mexico, and Texas; southern Mexico.

a. *Bassariscus astutus raptor* (Baird).

Bassariscus raptor Baird, Rep. U. S. Mex. Bound. Surv., Mamm., II, 1850, p. 19.

Bassariscus flavus oregonus Rhoads, Proc. Acad. Nat. Scien. Phil., 1893, p. 416.

Bassariscus astutus raptor Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 316, pl. xxxv. Zool. Ser.

Bassariscus astutus oregonus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 317. Zool. Ser.

ROBBER RACCOON-FOX.

Type locality. California?

Geogr. Distr. California and Oregon.

b. *Bassariscus astutus flavus* Rhoads.

Bassariscus astutus flavus Rhoads, Proc. Acad. Nat. Scien. Phil., 1893, p. 417. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 316. Zool. Ser. *Id.* Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 485. Zool. Ser.

TAWNY RACCOON-FOX.

Type locality. Texas.

Geogr. Distr. Texas south into northern Mexico.

971. *Bassariscus saxicola* Merriam.

Bassariscus saxicola Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 185. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 485. Zool. Ser.

ESPIRITU SANTO RACCOON-FOX.

Type locality. Espiritu Santo Island, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

972. *Bassariscus* * *sumichrasti* (Saussure).

Bassariscus sumichrasti Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 7, pl. I.

Bassariscus variabilis Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1874, p. 704, pls. I, II.

Bassariscus monticola Cordero, La Natural., III, 1875, p. 270, pl. —.

*In the Mammals of Middle America and the West Indies, Pt. II, p. 487, *Bassariscus sumichrasti* was given as a synonym of *annulatus* Wagner. On further investigation I am inclined to adopt Mr. Thomas' view, Am. Mag. Nat. Hist., 7th Ser., XI, 1903, p. 380, that Wagner's type was too young to definitely determine whether or not it was the same as Saussure's species, and therefore *B. sumichrasti* would assume its specific rank and the synonyms placed under *annulatus* must be restored to it. A description of *B. sumichrasti* is, therefore, here given.

SAUSSURE'S RACCOON-FOX. *Tepichiclu del Cofre de Perote, Cacomistle de Monte* in Mexico.

Type locality. Tehuantepec, Mexico.

Geogr. Distr. Unknown.

Genl. Char. Skull longer than that of *B. astutus*; zygomatic arches more bowed and heavier; sagittal crest present; the carnassial is shorter than that of the species named, the heel less oblique and pointed, and the second premolar is longer.

Color. General hue fawn mixed with black; flanks yellowish spotted with black; under parts yellowish. Head on top gray varied with black; nose brownish black; a buff spot above and below eye; cheeks gray spotted with black; throat and sides of neck whitish buff; chin blackish; a blackish buff band on inner side of fore legs, outer side of fore legs grizzled; outer side of hind legs like back, a mixed buff and black; feet blackish, becoming grayish buff at the toes; tail black, with four or five grayish buff rings on basal half, covered by the long hairs of the black portion; ears grayish buff at tips, brown at base.

Measurements. Total length, 782; tail vertebræ, 431.8.

a. *Bassariscus sumichrasti notinus* Thomas.

Bassariscus sumichrasti notinus Thomas, Ann. Mag. Nat. Hist., 7th Ser., XI, 1903, p. 379. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 485. Zool. Ser.

BOQUETE RACCOON-FOX.

Type locality. Boquete, Chiriqui, Panama.

Geogr. Distr. Panama, Central America. Range unknown.

973. *Bassariscus albipes* Elliot.

Bassariscus albipes Elliot, Pub. Field Columb. Mus., III, 1903, p. 258. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 486. Zool. Ser.

WHITE-FOOTED RACCOON-FOX.

Type locality. Near Vera Cruz, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico.

974. *Bassariscus annulatus* (Wagner).

Paradoxurus annulatus Wagn., Schreb. Säugth., Suppl., II, 1841, p. 353.

Bassariscus annulatus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 487. Zool. Ser.

SOUTHERN RACCOON-FOX. *Tepachiche del Cofre de Perote, Cacomistl de Monte* in Mexico, *Muyus* in Guatemala.

Type locality. Unknown.

Geogr. Distr. Mexico to Costa Rica.

Genus 119. **Bassaricyon.**

Bassaricyon Allen, Proc. Acad. Nat. Scien. Phil., 1876, p. 20. Type
Bassaricyon gabbii Allen.

975. Bassaricyon gabbi Allen.

Bassaricyon gabbii Allen, Proc. Acad. Nat. Scien. Phil., 1876, p.
23. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub.,
IV, Pt. II, 1904, p. 489, fig. 89. Zool. Ser.

GABB'S COON.

Type locality. Costa Rica.

Geogr. Distr. Unknown.

Genus 120. **Procyon.**

Procyon Storr, Prodr. Meth. Mamm., 1780, p. 35, Tab. A. Type
Ursus lotor Linnaeus.

Euprocyon Gray, Proc. Zool. Soc., 1864, pp. 705-706.

976. Procyon lotor (Linnaeus).

Ursus lotor Linn., Syst. Nat., I, 1758, p. 48.

Procyon lotor Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 317, fig. 62. Zool. Ser.

COMMON RACCOON.

Type locality. Eastern United States.

Geogr. Distr. Eastern North America from Canada to western
Georgia, and west to the Rocky Mountains north of Texas.

*a. *Procyon lotor elucus* Bangs.

Procyon lotor elucus Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p.
219. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p.
319. Zool. Ser.

SLEEPY RACCOON.

Type locality. Oak Lodge, opposite Micco, Brevard County,
Florida.

Geogr. Distr. Eastern Georgia and Florida.

b. Procyon lotor hernandezii (Wagler).

Procyon hernandezii Wagl., Isis, XXIV, 1831, p. 514.

Procyon nivea Gray, Charls. Mag. Nat. Hist., I, 1837, p. 580.

Procyon psora Gray, Ann. Mag. Nat. Hist., 1st Ser., 1842, p. 261.

*Doubtfully separable from *P. lotor*. See Elliot, Pub. Field Columb.
Mus., III, 1901, p. 51, under *P. lotor*.

Procyon lotor hernandezi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 317. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 491, fig. LXVII, pl. L. Zoöl. Ser.

HERNANDEZ'S RACCOON.

Type locality. Southern Mexico.

Geogr. Distr. Puget Sound, Washington, west of the mountains, south and west to Texas and south to southern Mexico.

c. *Procyon lotor pallidus* (Merriam).

Procyon pallidus Merr., Proc. Biol. Soc. Wash., XIII, 1900, p. 151.

Procyon lotor pallidus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 318. Zoöl. Ser.

PALE RACCOON.

Type locality. New River, Colorado Desert, San Diego County, California.

Geogr. Distr. Southern California. Range unknown.

d. *Procyon lotor pacificus* (Merriam).

Procyon psora pacifica Merr., N. Am. Faun., No. 16, 1899, p. 107.

Procyon lotor pacificus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 319. Zoöl. Ser.

PACIFIC COAST RACCOON.

Type locality. Lake Kichelos, Kittitas County, Washington. Altitude, 8,000 feet.

Geogr. Distr. Puget Sound and basal slopes of northern Cascades, Washington.

e. *Procyon lotor insularis* Merriam.

Procyon lotor insularis Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 17. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 492. Zoöl. Ser.

ISLAND RACCOON.

Type locality. Maria Madre Island, Tres Marias Islands, State of Jalisco, Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico.

977. *Procyon pygmæus* Merriam.

Procyon pygmæus Merr., Proc. Biol. Soc. Wash., XIV, 1901, p. 101. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 490. Zoöl. Ser.

LITTLE RACCOON.

Type locality. Island of Cozumel, Yucatan, Mexico.

Geogr. Distr. Known only from the type locality.

978. *Procyon maynardi* Bangs.

Procyon maynardi Bangs, Proc. Biol. Soc. Wash., xii, 1898, p. 92. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 490. Zoöl. Ser.

MAYNARD'S RACCOON.

Type locality. New Providence Island, Bahama Islands.

Geogr. Distr. Known only from the type locality.

Subgenus A. *Euprocyon*.**979. *Procyon cancrivorus* (Cuvier).**

Ursus cancrivorus Cuv., Tab. Élém. Hist. Nat., 1798, p. 113.

Procyon cancrivorus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 492, fig. 90. Zoöl. Ser.

CRAB-EATING RACCOON.

Type locality. Cayenne, French Guiana.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico. (Alston.) Panama; northern South America.

Genus 121. *Nasua*. *Coatis*.

***Nasua* Storr, Prodr. Meth. Mamm., 1780, p. 35.** Type *Viverra nasua* Linnæus.

980. *Nasua nelsoni* Merriam.

Nasua nelsoni Merr., Proc. Biol. Soc. Wash., xiv, 1901, p. 100.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv., Pt. II, 1904, p. 495. Zoöl. Ser.

NELSON'S COATI.

Type locality. Cozumel Island, Yucatan, Mexico.

Geogr. Distr. Known only from the type locality.

981. *Nasua nasica* (Linnæus).

Viverra narica (sic) Linn., Syst. Nat., i, 1766, p. 64.

Nasua nasica Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 497, figs. 91 and LXVIII. Zoöl. Ser.

COATI. *Pisoti*, *Tejon*, in Spanish America.

Type locality. "In America."

Geogr. Distr. Northern boundary of Mexico generally into Central America. Exact range not yet well defined.

a. *Nasua nasica molaris* (Merriam).

Nasua narica! molaris Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 68.

Nasua nasica molaris Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 497. Zoöl. Ser.

MANZANILLO COATI.

Type locality. Manzanillo, State of Colima, Mexico.

Geogr. Distr. State of Colima, Mexico. Range unknown.

b. *Nasua nasica bullata* (Allen).

Nasua narica! bullata Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1904, p. 48.

Nasua nasica bullata Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 497. Zoöl. Ser.

DARK COATI.

Type locality. Pozo Azul, Pirris Province, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

c. *Nasua nasica panamensis* (Allen).

Nasua narica! panamensis Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1904, p. 51.

Nasua nasica panamensis Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 498. Zoöl. Ser.

BOQUERON COATI.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

d. *Nasua nasica yucatanica* (Allen).

Nasua narica! yucatanica Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1904, p. 52.

Nasua nasica yucatanica Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 498. Zoöl. Ser.

YUCATAN COATI.

Type locality. Chichen Itza, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico. Range unknown.

e. *Nasua nasica pallida* (Allen).

Nasua narica! pallida Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1904, p. 53.

Nasua nasica pallida Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 498. Zoöl. Ser.

PALLID COATI.

Type locality. Near Guadalupe y Calva, Sierra Nevada, State of
Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico. Range unknown.

Genus 122. ***Potos. Kinkajous.**

Potos Cuv. & Geoff., Méth. Mamm., in Mag. Encycl., II, 1795, p. 187.

Type *Viverra caudivolvula* Schreber.

Cercoleptes Illig., Prodr. Syst. Mamm. et Av., 1811, p. 127.

Potos flavus aztecus Thomas.

Potos flavus aztecus Thomas, Ann. Mag. Nat. Hist., 7th Ser., IX, 1902, pp. 266, 268, desc. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 500, figs. (*Potos flavus*) 92 and LXIX. Zoöl. Ser.

AZTEC KINKAJOU. *Martica* in Mexico; *Micoleon* in Guatemala.

Type locality. Atoyca, State of Vera Cruz, Mexico.

Geogr. Distr. Central America, south to Guatemala.

Potos flavus chiriquensis Allen.

Potos flavus chiriquensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 72. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 501. Zoöl. Ser.

CHIRIQUE KINKAJOU.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Panama. Range unknown.

Family VI. **Mustelidæ. Badgers, Weasels, Otters, etc.**Subfamily I. **Melinæ.**Genus 123. **Taxidea. Badgers.**

Taxidea Storr, Prodr. Meth. Mamm., 1780, p. 34. Type *Ursus taxus* Schreber.

982. Taxidea taxus (Schreber).

Ursus taxus Schreb., Säugth., III, 1778, p. 520.

Meles taxus var. *B. americanus* Bodd., Elench. Anim., I, 1785, p. 136.

Ursus labradoria Gmel., Syst. Nat., I, 1788, p. 102.

Meles jeffersoni Harl., Faun. Am., 1825, p. 309.

Taxidea americana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 320, fig. 63. Zoöl. Ser.

**Potos flavus megalotus* (Martin), which Thomas has restricted to Colombia and Costa Rica, has been reconsidered by Allen, who assigns the name *megalotus* to the form found in eastern Colombia.

AMERICAN BADGER.

Type locality. Hudson Bay.

Geogr. Distr. Hudson Bay, British North America, in north latitude 58°, and in the United States from Wisconsin south to Oklahoma Territory, west to Rocky Mountains. Formerly it was found as far east as Ohio.

a. Taxidea taxus neglecta (Mearns).

Taxidea americana neglecta Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 250. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 321. Zool. Ser.

CALIFORNIA BADGER.

Type locality. Fort Crook, Shasta County, California.

Geogr. Distr. California.

b. Taxidea taxus berlandieri (Baird).

Taxidea berlandieri Baird, N. Am. Mamm., 1857, p. 205.

Taxidea americana berlandieri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 321. Zool. Ser.

Taxidea taxus berlandieri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 503, figs. 93 and LXX. Zool. Ser.

BERLANDIER'S BADGER.

Type locality. Llano Estacado, Texas, near border of New Mexico.

Geogr. Distr. Texas, Oklahoma Territory, New Mexico, and Arizona, and State of Tamaulipas, Mexico.

c. Taxidea taxus infusca Thomas.

Taxidea taxus infusca Thomas, Proc. Zool. Soc., 1898, p. 899. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 505. Zool. Ser.

LOWER CALIFORNIA BADGER.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Known only from the type locality.

Genus 124. **Mephitis. Skunks.**

Mephitis Cuv., Leçons d'Anat. Comp., Class Mamm., I, 1800, Tabl.

1. Type? "Les Moufettes."

Chincha Less., Nouv. Tabl. Règn. Anim., 1842, p. 67.

Leucomitra Howell, N. Am. Faun., No. 20, 1901, p. 39, pls. IV,

VIII.

Subgenus A. *Chincha*. Large-striped Skunks.983. *Mephitis mephitis* (Schreber).

Viverra mephitis Schreb., Säugth., III, 1776, p. 444, tab. 121.

Mephitis mephitica Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,

II, 1901, p. 322, fig. 64. (Part.) Zoöl. Ser.

CANADA SKUNK.

Type locality. North America.

Geogr. Distr. Eastern Canada—Nova Scotia, Quebec, and northern Ontario, west and north to Oxford House, Keewatin, Canada.

984. *Mephitis hudsonia* (Richardson).

Mephitis americana var. *hudsonica* Rich., Faun. Bor. Amer., I Mamm., 1829, p. 55.

Mephitis mephitica hudsonia Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 322. Zoöl. Ser.

NORTHERN PLAINS SKUNK.

Type locality. Plains of the Saskatchewan.

Geogr. Distr. Western Canada from Manitoba to British Columbia (east of the Cascades); south in the United States to Colorado, Nebraska, and Minnesota.

985. *Mephitis *olida* Boitard.

Mephitis putida G. Cuv., Tab. Élem. Hist. Nat. Anim., 1798, pp. 116, 117. (Indeterminable.) Boitard, Jard. Plantes, Paris, Mamm., 1842, p. 147. (Untenable.)

Mephitis olida Boitard, Jard. Plantes, Paris, Mamm., 1842, p. 147.

Mephitis fetidissima Boitard, Jard. Plantes, Paris, Mamm., 1842, p. 147.

Mephitis mephitica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 322. (Part.) Zoöl. Ser.

EASTERN SKUNK.

Type locality. New Jersey.

Geogr. Distr. New England and Middle Atlantic States, south to Virginia; west to Indiana.

986. *Mephitis elongata* (Bangs).

Mephitis mephitica elongata Bangs, Proc. Bost. Soc. Nat. Hist., 1895, p. 531.

Mephitis elongata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 324. Zoöl. Ser.

*As both *putida* Cuvier, and *putida* Boitard are inadmissible, the first because it is indeterminable and the latter because it was previously used by Cuvier, *olida* Boitard (l. c.), becomes the name that should properly be employed. (On this subject, see Allen, Proc. Biol. Soc. Wash., xv, 1902, p. 66.)

FLORIDA SKUNK.

Type locality. Micco, Brevard County, Florida.

Geogr. Distr. Florida, vicinity of Lake Worth, to North Carolina; mountains of West Virginia; west on Gulf coast to the Mississippi River.

987. *Mephitis mesomelas* Lichtenstein.

Mephitis mesomelas Licht., Darst. Säugeth., 1832, Text, pl. 45, fig. 2.

Mephitis mephitica scrutator Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 141. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 324. Zoöl. Ser.

LOUISIANA SKUNK.

Type locality. Louisiana.

Geogr. Distr. West side of Mississippi Valley from southern Louisiana to Missouri; westward along coast of Texas to Matagorda Island; and up the Red River Valley as far at least as Wichita Falls.

a. *Mephitis mesomelas avia* (Bangs).

Mephitis avia Bangs, Proc. Biol. Soc. Wash., XII, 1898, p. 32.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 327. Zoöl. Ser.

ILLINOIS SKUNK.

Type locality San José, Mason County, Illinois.

Geogr. Distr. Prairie region of Illinois, western Indiana, and eastern Iowa. Range not entirely determined.

b. *Mephitis mesomelas varians* (Gray).

Mephitis varians Gray, Charlesw. Mag. Nat. Hist., 1, 1837, p. 581.

Mephitis mesomelas Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 325. Zoöl. Ser. (nec Lichten.)

LONG-TAILED TEXAN SKUNK.

Type locality. Texas. Lower Grande Valley specimens typical.

Geogr. Distr. Southern and western Texas, eastern New Mexico, and adjacent parts of Mexico; north into Oklahoma, Colorado, Kansas, and Nebraska.

988. *Mephitis estor* Merriam.

Mephitis estor Merr., N. Am. Faun., No. 3, 1890, p. 81. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 326. Zoöl. Ser.

Mephitis mesomelas estor Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 509. Zoöl. Ser.

ARIZONA SKUNK.

Type locality. San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Arizona, western New Mexico, States of Sonora, and Chihuahua south in the Sierra Madre in latter state; Lower California, Mexico.

989. *Mephitis occidentalis* Baird.

Mephitis occidentalis Baird, N. Am. Mamm., 1857, p. 194. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1904, p. 324. Zool. Ser.

CALIFORNIA SKUNK.

Type locality. Petaluma, Sonoma County, California.

Geogr. Distr. Northern and central California; vicinity of Monterey Bay northward, west of the Sierra and Cascades to the Willamette Valley, Oregon.

a. Mephitis occidentalis spissigrada (Bangs).

Mephitis spissigrada Bangs, Proc. Biol. Soc. Wash., XII, 1898, p. 31. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 326. Zool. Ser.

Mephitis fatulenta Elliot, Pub. Field Columb. Mus., I, 1899, p. 269. Zool. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 326. Zool. Ser.

PUGET SOUND SKUNK.

Type locality. Sumas, British Columbia, Canada.

Geogr. Distr. Shores of Puget Sound and coast region of Washington and northern Oregon.

b. Mephitis occidentalis notata (Howell).

Chincha occidentalis notata Howell, N. Am. Faun., No. 20, 1901, p. 36.

CASCADE SKUNK.

Type locality. Trout Lake, Mount Adams, Skamania County, Washington.

Geogr. Distr. Southern Washington and northern Oregon, east of the Cascades.

Genl. Char. Similar to *M. occidentalis*, but tail shorter; body stripes narrow, and separated for their entire length. Skull: nasals short, lower carnassial broad; palate without notch.

Color. Black; white stripes narrow, not confluent, but usually joined to the nape; tail black exteriorly.

Measurements. Total length, average of 3 ad., 633; tail vertebræ, 249; hind foot, 76.

c. Mephitis occidentalis major (Howell).

Chincha occidentalis major Howell, N. Am. Faun., No. 20, 1901, p. 37.

GREAT BASIN SKUNK.

Type locality. Fort Klamath, Klamath County, Oregon. Altitude, 4,200 feet.

Geogr. Distr. Eastern Oregon, northern California, and Nevada east to the Wahsatch Mountains.

Genl. Char. White stripes broad and extending only short way on the tail; tail short, black exteriorly. Skull large; palate sometimes without notch; rostrum broad, flattened; premaxillæ short, broad.

Color. Like *M. occidentalis*; white stripes broad, bifurcating near middle of the back, and extending only a short distance on the tail.

Measurements. Average of 5 males. Total length, 705; tail vertebræ, 306; hind foot, 84.

d. Mephitis occidentalis holzneri Mearns.

Mephitis occidentalis holzneri Mearns, Proc. U. S. Nat. Mus., xx, 1897, p. 461. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 507, fig. 94. Zool. Ser.

LOWER CALIFORNIA SKUNK.

Type locality. San Isidro Ranch, Lower California, Mexico; near border of San Diego County, California.

Geogr. Distr. Monterey Bay south into Lower California, Mexico; east to the Sierra Nevada and San Bernardino Range, and the Mohave Desert.

990. *Mephitis platyrhina* (Howell).

Chincha platyrhina Howell, N. Am. Faun., No. 20, 1901, p. 39.

BROAD-NOSED SKUNK.

Type locality. South Fork of Kern River, twenty-five miles east of Kernville, Kern County, California.

Geogr. Distr. Known only from the type locality and from Owens Valley, Inyo County, California.

Genl. Char. Like *M. occidentalis*; rostrum very broad; zygomata spreading evenly, nearly parallel to skull; nasals short, broad.

Color. Black; white stripe of median width passing but short distance on the tail, which is black, an indistinct white band on the upper surface of apical half.

Measurements. Total length, 750; tail vertebræ, 320; hind foot, 90.

Subgenus B. *Leucomitra*. Hooded Skunks.991. *Mephitis macrura* Lichtenstein.*Mephitis macroura* Licht., Darst. Säugeth., 1832, pl. XLVI.*Mephitis macrura* Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 510, figs. 95 and LXXI. Zoöl. Ser.

HOODED SKUNK.

Type locality. Mountains northwest of the City of Mexico, Mexico.*Geogr. Distr.* Highlands of central and southern Mexico, south to Guatemala.a. *Mephitis macrura milleri* (Mearns).*Mephitis milleri* Mearns, Proc. U. S. Nat. Mus., XX, 1897, p. 467.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 325. Zoöl. Ser.

Mephitis macrura milleri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 511. Zoöl. Ser.

MILLER'S SKUNK.

Type locality. Fort Lowell, near Tucson, Pima County, Arizona.*Geogr. Distr.* Known only from the type locality.b. *Mephitis macrura vittata* (Lichtenstein).*Mephitis vittata* Licht., Darst. Säugeth., 1832, pl. 47.*Mephitis concolor* Gray, Proc. Zoöl. Soc., 1865, p. 149.*Mephitis vittata* var. *b. intermedia* Gray, Cat. Carniv. Brit. Mus., 1869, p. 138.*Mephitis macrura vittata* Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 512. Zoöl. Ser.

BRIDLED SKUNK.

Type locality. San Mateo del Mar, State of Oaxaca, Mexico.*Geogr. Distr.* Known only from the type locality.Genus 125. *Conepatus*.*Conepatus* Gray, Charlesw. Mag. Nat. Hist., 1837, p. 581. Type*Conepatus humboldtii* Gray.*Ictonyx (sic)* Kaup, Thierr., I, 1835, p. 352.*Marputius* Gray, Charlesw. Mag. Nat. Hist., 1837, p. 581.*Thiosmus* Licht., Abh. K. Akad. Wiss. Berl., 1838, p. 270.*Ozolicis* Gloger, Hand- u. Hilfsb. Naturg., 1841, p. 57.*Rhinozolis* Gloger, Hand- u. Hilfsb. Naturg., 1841, p. 58.*Oryctogale* Merr., Proc. Biol. Soc. Wash., XV, 1902, p. 161.

Subgenus A. *Conepatus*.

992. *Conepatus sonoriensis* Merriam.

Conepatus sonoriensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 162. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 514. Zoöl. Ser.

SONORAN SKUNK.

Type locality. Camoa, Rio Mayo, State of Sonora, Mexico.

Geogr. Distr. Valparaiso Mountains, State of Zacatecas, north-westerly into the State of Sonora.

993. *Conepatus leuconotus* (Lichtenstein).

Mephitis leuconota Licht., Darst. neuer oder wenig bekannter Säugeth., 1832, text, pl. XLIV, fig. 1.

Conepatus leuconotus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 515. Zoöl. Ser.

WHITE-SPOTTED SKUNK.

Type locality. Upper waters of Rio Alvarado, State of Vera Cruz, Mexico.

Geogr. Distr. States of Vera Cruz, Mexico. Range unknown.

a. Conepatus leuconotus texensis Merriam.

Conepatus leuconotus texensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 162. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 515. Zoöl. Ser.

TEXAN SKUNK.

Type locality. Brownsville, Lower Rio Grande, Cameron County, Texas.

Geogr. Distr. Coast of Texas from Rockport, Aransas County, to mouth of the Rio Grande. State of Tamaulipas, Mexico?

994. *Conepatus mesoleucus* (Lichtenstein).

Mephitis mesoleuca Licht., Darst. neuer oder wenig bekannter Säugeth., 1832, pl. XLIV, fig. 2.

Conepatus mesoleucus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 515. Zoöl. Ser.

WHITE-BACKED SKUNK.

Type locality. Chico, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico. Range unknown.

a. Conepatus mesoleucus mearnsi Merriam.

Conepatus mesoleucus mearnsi Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 163. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 516, figs. 96 and LXXII. Zoöl. Ser.

Conepatus mapurito Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, Suppl., p. 510, pl. LVI. Zoöl. Ser. (nec Gmel.)

MEARNS' SKUNK.

Type locality. Mason, Mason County, Texas.

Geogr. Distr. Tableland of Mexico from the States of Jalisco and southwestern San Luis Potosi, northward to central Texas and central Arizona.

995. *Conepatus felipensis* Merriam.

Conepatus felipensis Merr., Proc. Biol. Soc. Wash., xv, 1902, p.

163. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 517. Zoöl. Ser.

SAN FELIPE SKUNK.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico.

Geogr. Distr. Cerro San Felipe, State of Oaxaca, Mexico. Altitude, 7,000 to 10,500 feet.

996. *Conepatus pediculus* Merriam.

Conepatus pediculus Merr., Proc. Biol. Soc. Wash., xv, 1902, p.

164. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 517. Zoöl. Ser.

GUADALUPE SKUNK.

Type locality. Sierra Guadalupe, State of Coahuila, Mexico.

Geogr. Distr. State of Coahuila, Mexico. Range unknown.

Subgenus B. *Marputius*.

997. *Conepatus tropicalis* Merriam.

Conepatus tropicalis Merr., Proc. Biol. Soc. Wash., xv, 1902, p.

164. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 517, fig. 97. Zoöl. Ser.

MOTZORONGO SKUNK.

Type locality. Motzorongo, State of Vera Cruz, Mexico.

Geogr. Distr. East coast of the State of Vera Cruz, southeasterly to Yucatan, Mexico.

Genus 126. **Spilogale. Little Striped or Spotted Skunks.**

Spilogale Gray, Proc. Zoöl. Soc., 1865, p. 150. Type *Mephitis interrupta* Rafinesque.

998. *Spilogale interrupta* (Rafinesque).

Mephitis interrupta Rafin., Ann. Nat., I, 1820, p. 3.

Mephitis bicolor Gray, Charles. Mag. Nat. Hist., I, 1837, p. 581.

Mephitis quaterlinearis Winans, Coues Fur-bear. Anim., 1877, p. 239.

Spilogale interrupta Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 328. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 523, figs. 98, LXXIII. Zoöl. Ser.

WHITE-SPOTTED SKUNK.

Type locality. Upper Missouri?

Geogr. Distr. Kansas, Oklahoma Territory to Texas, south through Mexico to Guatemala.

999. *Spilogale ringens* Merriam.

Spilogale ringens Merr., N. Am. Faun., No. 4, 1890, p. 9. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 329. Zoöl. Ser.

GROWLING SPOTTED SKUNK.

Type locality. Greensborough, Hale County, Alabama.

Geogr. Distr. Alabama, western Georgia, north to West Virginia and Virginia.

1000. *Spilogale indianola* Merriam.

Spilogale indianola Merr., N. Am. Faun., No. 4, 1890, p. 10. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 329. Zoöl. Ser.

INDIANOLA SPOTTED SKUNK.

Type locality. Indianola, Matagorda Bay, Matagorda County, Texas.

Geogr. Distr. Texas.

1001. *Spilogale leucoparia* Merriam.

Spilogale leucoparia Merr., N. Am. Faun., No. 4, 1890, p. 11. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 329. Zoöl. Ser.

MERRIAM'S SPOTTED SKUNK.

Type locality. Mason, Mason County, Texas.

Geogr. Distr. Texas.

1002. *Spilogale tenuis* Howell.

Spilogale tenuis Howell, Proc. Biol. Soc. Wash., xv, 1902, p. 241.

SLENDER SPOTTED SKUNK.

Type locality. Arkins, Larimer County, Colorado.

Geogr. Distr. Colorado. Range unknown.

Genl. Char. Similar to *S. leucoparia*; lateral stripes narrower; frontal patch long and narrow; terminal third of tail white. Skull:

braincase broad and very flat; rostrum, postorbital region, and anterior part of braincase very narrow.

Measurements. Total length, 450; tail vertebræ, 165; hind foot, 51. Skull: Hensel, 52; zygomatic width, 34.7; mastoid breadth, 32.5; interorbital breadth, 14.3.

1003. *Spilogale saxatilis* Merriam.

Spilogale saxatilis Merr., N. Am. Faun., No. 4, 1890, p. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 330. Zool. Ser.

ROCK SPOTTED SKUNK.

Type locality. Provo, Utah County, Utah.

Geogr. Distr. Utah.

1004. *Spilogale phenax* Merriam.

Spilogale phenax Merr., N. Am. Faun., No. 4, 1890, p. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 331. Zool. Ser.

CHEATING SPOTTED SKUNK.

Type locality. Nicasio, Marin County, California.

Geogr. Distr. California.

a. Spilogale phenax latifrons Merriam.

Spilogale phenax latifrons Merr., N. Am. Faun., No. 4, 1890, p. 15. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 331. Zool. Ser.

BROAD-HEADED SPOTTED SKUNK.

Type locality. Roseburg, Douglas County, Oregon.

Geogr. Distr. Oregon.

1005. *Spilogale arizonæ* (Mearns).

Spilogale phenax arizonæ Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 256. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 331. Zool. Ser.

ARIZONA SPOTTED SKUNK.

Type locality. Fort Verde, Arizona.

Geogr. Distr. Central Arizona.

a. Spilogale arizonæ martirensis Elliot.

Spilogale arizonæ martirensis Elliot, Pub. Field Columb. Mus., 111, 1903, p. 170. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 521. Zool. Ser.

SAN PEDRO MARTIR SPOTTED SKUNK.

Type locality. Vallecitos, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 9,000 feet.

Geogr. Distr. San Pedro Martir Range, Lower California, Mexico.

1006. *Spilogale olympica* Elliot.

Spilogale olympica Elliot, Pub. Field Columb. Mus., 1, 1899, p. 270. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 332. Zoöl. Ser.

OLYMPIC MOUNTAINS SPOTTED SKUNK.

Type locality. Lake Southerland, Olympic Mountains, Clallam County, Washington.

Geogr. Distr. Northwest Washington.

1007. *Spilogale ambarvalis* Bangs.

Spilogale ambarvalis Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 222. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 332. Zoöl. Ser.

FIELD SPOTTED SKUNK.

Type locality. Oak Lodge, opposite Micco, Brevard County, Florida.

Geogr. Distr. East Peninsula, Indian River, Florida.

1008. *Spilogale gracilis* Merriam.

Spilogale gracilis Merr., N. Am. Faun., No. 4, 1890, p. 83. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 330. Zoöl. Ser.

GRACEFUL SKUNK.

Type locality. Grand Cañon of the Colorado, north of San Francisco Mountain, Coconino County, Arizona.

Geogr. Distr. Arizona. Range undetermined.

1009. *Spilogale pygmæa* Thomas.

Spilogale pygmæa Thomas, Proc. Zoöl. Soc., 1898, p. 898. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 1v, Pt. 11, 1904, p. 519. Zoöl. Ser.

PIGMY SPOTTED SKUNK.

Type locality. Rosario, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico.

1010. *Spilogale ambigua* Mearns.

Spilogale ambigua Mearns, Proc. U. S. Nat. Mus., xx, 1897, p. 460. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 1v, Pt. 11, 1904, p. 521. Zoöl. Ser.

CHIHUAHUA LITTLE SPOTTED SKUNK.

Type locality. Eagle Mountain, State of Chihuahua, Mexico.

Geogr. Distr. State of Chihuahua, Mexico; Mimbres Valley and Lake Palomas, boundary line.

1011. *Spilogale angustifrons* Howell.

Spilogale angustifrons Howell, Proc. Biol. Soc. Wash., xv, 1902, p. 242. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 521. Zool. Ser.

NARROW-HEADED SPOTTED SKUNK.

Type locality. Tlalpam, Federal District, Mexico.

Geogr. Distr. Tableland in the State of Guanajuato to State of Chiapas, Mexico.

a. *Spilogale angustifrons tropicalis* Howell.

Spilogale angustifrons tropicalis Howell, Proc. Biol. Soc. Wash., xv, 1902, p. 242. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 521. Zool. Ser.

OAXACA SPOTTED SKUNK.

Type locality. San Mateo del Mar, State of Oaxaca, Mexico.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

1012. *Spilogale lucasana* Merriam.

Spilogale lucasana Merr., N. Am. Faun., No. 4, 1890, p. 11. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 523. Zool. Ser.

CAPE ST. LUCAS SPOTTED SKUNK.

Type locality. Cape St. Lucas, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California, Mexico.

Subfamily II. *Mustelinæ*.**Genus 127. *Gulo*. *Wolverine*.**

Gulo Frisch, Das Natur-syst. vierfüss. Thiere, in Tabellen, 17, Tab. Gen., 1775. Type *Mustela gulo* Linnæus.

1013. *Gulo luscus* (Linnæus).

Mustela gulo Linn., Syst. Nat., 1, 1758, p. 45.

Ursus luscus Linn., Syst. Nat., 1, 1758, p. 47.

Gulo luscus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 333. Zool. Ser.

WOLVERINE.

Type locality. Hudson Bay.

Geogr. Distr. Boreal North America from Atlantic Ocean to Alaska, south to the Basin of the Great Salt Lake, Utah.

1014. *Gulo luteus* Elliot.

Gulo luteus Elliot, Pub. Field Columb. Mus., III, 1903, p. 200.

Zoöl. Ser.

BUFF-COLORED WOLVERINE.

Type locality. Mount Whitney, Inyo County, California.

Geogr. Distr. Mount Whitney to Yakutat Bay? Alaska.

Genl. Char. General hue of hind part of head, sides of body, and base of tail buff color.

Color. Nose, lips, cheeks to and including eyes jet black; top of head and back of eyes pale gray; nape and space between shoulders chestnut; lower part of back and rump seal brown in the center, grading to chestnut on the edges; band across middle of back and encircling the dark patch and sides buff; under parts blackish chestnut with a small white spot on throat; legs and feet black; tail, basal half buff, remainder black; ears chestnut with broad buff edging.

Measurements. Total length, 850; tail vertebrae, 205; hind foot, 165; ear, 53.

1015. *Gulo hylæus* Elliot.

Gulo hylæus Elliot, Proc. Biol. Soc. Wash., XVIII, 1905, p. 81.

MOUNT MCKINLEY WOLVERINE.

Type locality. Upper waters of Sushitna River, region of Mount McKinley, Alaska. No. 9883, Field Columbian Mus., Chicago.

Genl. Char. Type: General color very dark; no buff hue on body; or gray on head anywhere visible. Skull compared with that of specimens from New Brunswick, Canada, is narrower, especially at intertemporal region, also at postorbital constriction and posterior region of braincase; and the zygomatic width is less; but the audital bullæ are nearly twice as large, and swollen greatly on their inner margin, whereas those of the Canadian animal are much flattened and small in size.

Color. Head, throat, sides of neck, and body, and base of tail chestnut; hind part of neck, back, under parts, legs, and feet black; chest spotted or blotched with white or orange, and orange spot on anal region; nose darker chestnut than head; tail, except at base, black.

Measurements. Skull: Total length, 157; Hensel, 133; zygomatic width, 104; intertemporal width, 47; postorbital constriction, 32; palatal length, 75; greatest width of braincase, 67.5; mastoid width, 89; post-palatal length, 57; length of nasals, 21; length of upper pre-molar and molar series, 41; length of mandible, 101; height of coronoid process above angle, 35; length of lower premolar and molar series 54; length of lower carnassial, alveolar border, 21.

Genus 128. **Galera. The Grisons.**

Galera Browne, Civil & Naval Hist. Jamaica, 2d Ser., 1789, p. 485, Tab. 49, fig. 1. Type *Mustela barbara* Linnæus.

**Grison* Oken, Lehrb. der Naturgesch., Zool., II, 1816, pp. XI, 1000.

Tayra Oken, Lehrb. der Naturgesch., Zool., II, 1816, p. 1001.

Grisonia Gray, Ann. Phil., XXVI, 1825, p. 339.

Laira F. Cuv., Hist. Nat. Mamm., v, 1826, livr. XLV.

Galictis Bell, Zool. Journ., II, 1826, p. 551.

Galidictis I. Geoff., Mag. Zool., Mamm., 1839, p. 32.

Subgenus A. **Tayra.**

Galera barbara biologiae (Thomas).

Galictis barbara biologiae Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 146.

Grison barbara biologiae Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 524, fig. 99 (*G. barbara*). Zool. Ser.

CALOVEVORA GRISON. *Chulomuco, Tulomuco* in Costa Rica.

Type locality. Calovevora, Veragua, Panama.

Geogr. Distr. Central America generally.

Galera barbara senex (Thomas).

Galictis barbara senex Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 146.

Grison barbara senex Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 525. Zool. Ser.

GRAY-HEADED GRISON.

Type locality. Hacienda Tortugas, Jalapa, State of Vera Cruz, Mexico. Altitude, about 600 feet.

Geogr. Distr. Known only from the type locality.

Subgenus B. **Galictis.**

1016. **Galera allamandi** (Bell).

Galictis allamandi Bell, Proc. Zool. Soc., 1837, p. 47.

Grison allamandi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 526. Zool. Ser.

*In the Mamm. Middle Amer. & W. Indies, *Grison* was employed as the generic term for the allied forms of *Mustela barbara* Linn., but this appears to be an error, as *Galera* (l. c.) Brown, clearly antedates *Grison* Oken, and should be the term employed. The fact that *Galera* has been used in various ways by authors, and some confusion has been thereby created, in no way invalidates its claim to take precedence over all other names proposed for this genus of mammals.

ALLAMAND'S GRISON.

Type locality. Unknown. Collection of the Zoölogical Society of London.

Geogr. Distr. Unknown.

1017. *Galera canaster* (Nelson).

Galictis canaster Nelson, Proc. Biol. Soc. Wash., XIV, 1901, p. 129.

Grison canaster Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 526, figs. 100, LXXIV. Zoöl. Ser.

GRIZZLED, OR NELSON'S GRISON.

Type locality. Tunkas, State of Yucatan, Mexico.

Geogr. Distr. From Orizaba, State of Puebla, to Yucatan, Mexico.

Genus 129. *Mustela*. Martens, or Sables. Fishers.

Mustela Linn., Syst. Nat., I, 1758, p. 45; I, 1766, p. 66. Type *Mustela martes* Linnæus.

1018. *Mustela americana* Turton.

Mustela martes Forst., Philos. Trans., 1772, p. 372. (nec Linn.)

Mustela zibellina Pallas, Spicil. Zool., XIV, 1780?, p. 57. *Id.* Zoög.

Rosso-Asiat., I, 1831, p. 84. (nec Linn.)

Mustela americanus Turton, Linn. Syst. Nat., I, 1806, p. 60.

Mustela vulpina Rafin., Am. Journ. Scien., I, 1819, p. 82.

Mustela leucopus Kuhl, Beitr., 1820, p. 74.

Mustela huro F. Cuv., Dict. Scien. Nat., XXIX, 1823, p. 256.

Mustela americana Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 334, fig. 66. Zoöl. Ser.

AMERICAN MARTEN. HUDSON BAY SABLE.

Type locality. Eastern North America.

Geogr. Distr. Boreal North America, west to the Rocky Mountains, south to New York.

a. *Mustela americana abieticola* Preble.

Mustela americana abieticola Preble, N. Am. Faun., No. 22, 1902, p. 68.

SASKATCHEWAN MARTEN.

Type locality. Cumberland House, Saskatchewan, Canada.

Genl. Char. Larger than *M. americana*; dentition heavier, except last molar.

Color. General color dark yellowish brown, darkest on dorsal region; legs dark brown; tail dark brown, tip usually black; spot on chest ochraceous; face and cheeks grayish brown, ears edged with whitish.

Measurements. Total length, 640; tail vertebræ, 210; hind foot, 95. Skull: average of six adults; occipito-nasal length, 78.9; zygomatic breadth, 47.8; interorbital constriction, 16.7; width across postorbital processes, 22.5; mastoid breadth, 37.8.

b. Mustela americana abietinoides (Gray).

Martes americana var. 1. *abietinoides* Gray, Proc. Zool. Soc., 1865, p. 106.

SELKIRK MARTEN.

Type locality. "Rocky Mountains."

Geogr. Distr. Interior region of British Columbia, Selkirk, and Gold Mountain Ranges, Canada.

Color. "Black brown; ears pale; head grizzled with white hairs, more or less gray; throat yellow or yellow spotted; throat spots large or broken up into small spots; the head sometimes with only a few gray hairs, and the throat with only a few distinct small spots." (Gray.)

Measurements. Total length, 584; tail vertebræ, 178; hind foot, 87. Skull: basal length, 70; zygomatic breadth, 43; postorbital constriction, 17.

c. Mustela americana brumalis (Bangs).

Mustela brumalis Bangs, Amer. Nat., xxxii, 1898, p. 502, fig.

Mustela americana brumalis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 336. Zool. Ser.

LABRADOR MARTEN.

Type locality. Okak, Labrador.

Geogr. Distr. Northern Labrador.

d. Mustela americana actiosa Osgood.

Mustela americana actiosa Osgood, N. Am. Faun., No. 19, 1900, p. 43. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 336. Zool. Ser.

ACTIVE MARTEN.

Type locality. Fort Yukon, Alaska.

Geogr. Distr. Alaska. Range unknown.

1019. *Mustela nesophila* Osgood.

Mustela nesophila Osgood, N. Am. Faun., No. 21, 1901, p. 33.

QUEEN CHARLOTTE ISLAND MARTEN.

Type locality. Graham Island, Queen Charlotte Islands, British Columbia, Canada.

Genl. Char. Rostrum thick, heavy.

Measurements. Skull: basilar length, 73; palatal length, 39; post-

palatal length, 34; zygomatic breadth, 45.5; postorbital width across processes, 23; interorbital constriction, 19; skull only known.

1020. *Mustela boria* Elliot.

Mustela boria Elliot, Proc. Biol. Soc. Wash., XVIII, 1905, p. 139.

FARTHEST NORTH MARTEN.

Type locality. Lower Mackenzie River District, towards Arctic Ocean.

Genl. Char. Darkest in color of American Martens. Tail long, black.

Color. Sides of head grayish white; nose and top of head light brown and gray mixed; entire body above and below burnt umber, blackish on dorsal region; entire throat beneath blotched with orange; fore and hind legs black; tail black, base of hairs on proximal half burnt umber; ears like body externally, white internally.

Measurements. Total length, nose to end of hairs of tail, 785; tail, end of hairs, 267; hind foot, 85. (Skin.) Skull (broken): zygomatic width, 50; intertemporal width, 16; length of nasals, 15; width of rostrum at canines, 18; palatal length, 41; length of upper tooth row, outer edge of canine to posterior edge of last molar, 30; length of mandible, 51; length of lower tooth row, 36.

1021. *Mustela kenaiensis* (Elliot).

Mustela americana kenaiensis Elliot, Pub. Field. Columb. Mus., III, 1903, p. 151, pl. xxxii. Zool. Ser.

KENAI PENINSULA MARTEN.

Type locality. Kenai Peninsula, Alaska.

Geogr. Distr. Range unknown.

Genl. Char. Smaller than *M. a. actiosa*; tail longer; feet shorter; color darker; no gular or abdominal patches; audital bullæ large, ridged, rectangular, longitudinally produced; molar heavy; sagittal crest prominent.

Color. Above tawny buff and black; top of head dark gray; forehead, top of nose, and sides of head brownish white; sides of nose dark brown; chin and throat uniform dark ochre; under parts dark chocolate brown; inguinal region pale buff; outer fore legs above chocolate brown; feet black with grayish patch at toes beneath; hind legs and feet blackish; chocolate patch at base of toes above; tail black, chocolate at base; ears brownish black.

Measurements. Total length, 790; tail vertebræ, 293; hind foot, 90. (Skin.) Skull: occipito-nasal length, 79.5; Hensel, 75; zygomatic width, 50; interorbital breadth, 18; mastoid breadth, 35.5; length of nasals, 8; palatal length, 39.5; post-palatal length, 34.5; length of pterygoid fossa, 12; length of bullæ, 17; length of upper

tooth row, 25; length of mandible, 55; height at condyle, 26; length of lower tooth row, 30.

1022. *Mustela atrata* Bangs.

Mustela atrata Bangs, Amer. Nat., xxxi, 1897, p. 162. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 335. Zoöl. Ser.

NEWFOUNDLAND MARTEN.

Type locality. Bay St. George, Newfoundland.

Geogr. Distr. Newfoundland.

1023. *Mustela caurina* Merriam.

Mustela caurina Merr., N. Am. Faun., No. 4, 1890, p. 27.

Mustela atrata caurina Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 335. Zoöl. Ser.

PACIFIC MARTEN.

Type locality. Near Gray's Harbor, Chehalis County, Washington.

Geogr. Distr. Northwest coast of California to Puget Sound.

a. *Mustela caurina origenes* Rhoads.

Mustela caurina origenes Rhoads, Proc. Acad. Nat. Scien. Phil., 1902, p. 458.

ROCKY MOUNTAIN MARTEN.

Type locality. Marvine Mountain, Garfield County, Colorado.

Geogr. Distr. Southern Rocky Mountain region; new Mexico?

Color. Upper parts and sides wood brown; long hairs on dorsal region and rump broccoli brown; gular patch extensive; buffy orange; rest of under parts lighter than back; tail long, dark; ears edged with ochraceous buff.

Measurements. Total length, 676; tail vertebræ, 230; hind foot, 85. Skull: basal length, 65; zygomatic breadth, 41.

1024. *Mustela canadensis* Schreber.

Mustela canadensis Schreber, Säugth., III, Text, p. 492, 1777, pl. CXXIV, 1776.

Mustela pennanti Erxl., Syst. Anim., 1777, p. 470. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 337. Zoöl. Ser.

Mustela melanorhyncha Bodd., Elench. Anim., 1784, p. 88.

Viverra piscator Shaw, Gen. Zoöl., I, 1800, p. 414.

Mustela nigra Turton, Linn. Syst. Nat., I, 1806, p. 60.

Mustela godmani Fischer, Syn. Mamm., 1829, p. 217.

PENNANT'S FISHER.

Type locality. "New York and Pennsylvania." (Pennant.)

Geogr. Distr. North America north of 35°, in forest-covered country, east of the Cascade Mountains. Intergrading with the next

species on the Pacific slope. Typical form restricted to Alleghanian specimens.

a. Mustela canadensis pacifica Rhoads.

Mustela canadensis pacifica Rhoads, Trans. Am. Philos. Soc., 1898, p. 435.

Mustela pennanti pacifica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 337. Zoöl. Ser.

PACIFIC FISHER.

Type locality. Lake Kichelos, Kittitas County, Washington. Altitude, 8,000 feet.

Geogr. Distr. Pacific slope, California to Alaska.

Genus 130. **Putorius. Mink, Weasels.**

Putorius Frisch., Nat. Syst. vierfüß. Thiere, in Tab., II, Tab. Gen., 1775. Type *Mustela putorius* Linnæus.

Arctogale Kaup (nec Peters), Entw.-Gesch. Nat. Syst. der Europ. Thierw., I, 1829, p. 30.

Ictis Kaup, Entw.-Gesch. Nat. Syst. der Europ. Thierw., I, 1829, p. 40.

Gale Wagn., Schreb. Säugth., Suppl., II, 1841, p. 234.

Lutreola Wagn., Schreb. Säugth., Suppl., II, 1841, p. 239.

Vison Gray, List Spec. Mamm. Brit. Mus., 1843, p. 64.

Neogale Gray, Proc. Zoöl. Soc., 1865, p. 114.

Cynomyonax (sic) Coues, Fur-bear. Anim., 1877, p. 147.

Subgenus A. *Lutreola*. **Mink.**

1025. Putorius vison (Schreber).

Mustela lutreola Forst., Phil. Trans., LXII, 1772, p. 371. (nec Linn.)

Mustela canadensis Erxl., Syst. Reg. Anim., I, 1777, p. 455. (nec *M. l. canadensis* of Schreber.)

Mustela vison Schreber, Säugth., III, 1777, p. 463.

Mustela winingus Barton, Am. Philos. Trans., VI, 1809, p. 70.

Mustela minx Ord, Guthrie's Geogr., 2d Am. ed., II, 1815, p. 291.

Mustela lutreocephala Harlan, Faun. Amer., 1825, p. 63.

Putorius nigrescens Aud. & Bach., Quad. N. Am., III, 1853, p. 104, pl. CXXIV.

Putorius vison Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 338, fig. 67. Zoöl. Ser.

Putorius vison lutreocephalus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 339. Zoöl. Ser.

COMMON MINK.

Type locality. Eastern Canada.

Geogr. Distr. Eastern North America through Canada north to the Arctic Sea east of Hudson Bay. In United States north of Gulf States to eastern boundary of the Pacific coast.

a. Putorius vison lacustris (Preble).

Lutreola vison lacustris Preble, N. Am. Faun., No. 22, 1902, p. 66.

KEEWATIN MINK.

Type locality. Echimamish River, Keewatin, Canada.

Genl. Char. Similar to *P. vison*, but larger; skull more angular; sagittal crest highly developed; zygomatics greatly bowed outward; bullæ large, flat, inner anterior corner produced toward pterygoids, terminating in acute angle.

Color. Above dark chocolate brown; beneath lighter; chin and narrow stripe to breast white; also some white between hind legs.

Measurements. Total length, 560; tail vertebræ, 190; hind foot, 67. Skull: average 10 adults. Occipito-nasal length, 62.5; zygomatic breadth, 41.25; interorbital constriction, 11.9; width across postorbital processes, 18.25; mastoid breadth, 36.

b. Putorius vison vulgivagus (Bangs).

Putorius (Lutreola) vulgivagus Bangs, Proc. Bost. Soc. Nat. Hist., 1895, p. 536.

Putorius vison vulgivagus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 340. Zoöl. Ser.

RAMBLING MINK.

Type locality. Burbridge, Plaquemines Parish, Louisiana.

Geogr. Distr. Shores of the Gulf of Mexico from Texas to Florida and probably on the Atlantic coast of Georgia and South Carolina.

c. Putorius vison energumenus Bangs.

Putorius vison energumenus Bangs, Proc. Bost. Soc. Nat. Hist., 1896, p. 5.

Putorius vison energumenus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 340. Zoöl. Ser.

DEVILISH MINK.

Type locality. Sumas, British Columbia, Canada.

Geogr. Distr. Pacific slope from northern California to Alaska.

d. Putorius vison ingens (Osgood).

Lutreola vison ingens Osgood, N. Am. Faun., No. 19, 1900, p. 42.

Putorius vison ingens Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 340. Zoöl. Ser.

LARGE MINK.

Type locality. Fort Yukon, Alaska.

Geogr. Distr. Region of the River Yukon, Alaska.

1026. *Putorius melampeplus* (Elliot).

Putorius vison melampeplus Elliot, Pub. Field Columb. Mus., 111, 1903, p. 170. Zoöl. Ser.

DARK-HUED MINK.

Type locality. Kenai Peninsula, Alaska.

Genl. Char. Size large, but smaller than *P. v. ingens*; color dark without reddish tint. Skull: compared with that of *P. v. energumenus* has flatter audital bullæ; palate broader posteriorly; broader pterygoid fossa and comparatively shorter; rostrum wider and heavier; interorbital constriction greater as is also the width across post-orbital processes; palate wider at incisors, and last upper molar smaller and narrower. Well developed sagittal and occipital crests.

Color. Entire upper parts, legs, and feet dark chocolate without any red tints; under parts slightly paler; white spot on chin, and sometimes a smaller one on chest; tail blackish.

Measurements. Total length, 710; tail vertebræ, 180; hind foot, 65. (Skin.) Skull: occipito-nasal length, 59; Hensel, 60; zygomatic width, 40; interorbital constriction, 10; mastoid width, 32; width of braincase, 30; palatal length, 28; length of audital bullæ, 15; breadth of rostrum, 15; length of nasals, 9; width across post-orbital processes, 18; length of mandible, 35; height at angle, 6; at coronoid process, 19.

1027. *Putorius lutensis* Bangs.

Putorius (Lutreola) lutensis Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 229.

Putorius lutensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 340. Zoöl. Ser.

MUD-LOVING MINK.

Type locality. Salt marsh off Matanzas Inlet, St. John County, Florida.

Geogr. Distr. South Atlantic States, South Carolina to Florida.

Subgenus B. *Oynomyanax*.

1028. *Putorius nigripes* Audubon & Bachman.

Putorius nigripes Aud. & Bach., N. Am. Quadr., 11, 1851, p. 297.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 341, fig. 68. Zoöl. Ser.

BLACK-FOOTED MINK.

Type locality. Plains of the Platte River, Nebraska.

Geogr. Distr. Kansas to Montana and North Dakota, east of the Rocky Mountains.

Subgenus C. *Arctogale*. Weasels.**1029. *Putorius cicognani* (Bonaparte).**

Mustela (Putorius) vulgaris Rich., Faun. Bor. Amer., Mamm., 1, 1829, p. 45. (nec Brisson.)

Mustela cicognanii Bonap., Iconog. Faun. Ital., 1, fasc. xxii, 1838, p. 4.

Putorius cicognani Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 344, fig. 69. Zool. Ser.

COMMON WEASEL.

Type locality. Northeastern North America. Carlton House?

Geogr. Distr. Forest country from New England and Labrador to coast of southeastern Alaska and south in the Rocky Mountains to Colorado. In the United States, it is common in New England and New York and in parts of Minnesota. Probably also in northern Michigan and Wisconsin.

a. Putorius cicognani richardsoni (Bonaparte).

Mustela richardsonii Bonap., Charlesw. Mag. Nat. Hist., 11, 1838, p. 38.

Putorius cicognani richardsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 344. Zool. Ser.

RICHARDSON'S WEASEL.

Type locality. Fort Franklin, Great Bear Lake, Mackenzie, Canada.

Geogr. Distr. Hudson Bay to interior of Alaska and British Columbia, Canada.

b. Putorius cicognani alascensis (Merriam).

Putorius richardsoni alascensis Merr., N. Am. Faun., No. 11, 1896, p. 12.

Putorius cicognani alascensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 344. Zool. Ser.

ALASKAN WEASEL.

Type locality. Juneau, Alaska.

Geogr. Distr. Alaska. Range unknown.

1030. *Putorius microtis* Allen.

Putorius microtis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 563.

SMALL-EARED WEASEL.

Type locality. Shesley, headwaters of the Shesley River, British Columbia, Canada.

Geogr. Distr. Range unknown.

Genl. Char. Similar to *P. c. richardsoni*, but smaller and with smaller ears. Skull: with very broad rostral and interorbital portions and broad nasals; postpalatal fossa small, U-shaped; audital bullæ small, flat.

Color. Above dark brown tinged with golden; beneath white tinged with sulphur yellow; toes white on all feet.

Measurements. Total length, 295; tail vertebrae, 82; hind foot, 37; ear from crown, 19. Skull: total length, 40; zygomatic breadth, 20.5; length of nasals, 7; width of nasals at middle, 3.5; palatal length, 14; interorbital breadth, 9; postorbital breadth, 9.5; across postorbital processes, 11; mastoid breadth, 14; length of bullæ, 12; width of bullæ, 7; length of mandible, 20; length of molar series, 9; height of mandible at coronoid process, 9.

1031. *Putorius streator* Merriam.

Putorius streator Merr., N. Am. Faun., No. 11, 1896, p. 13. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 345. Zool. Ser.

STREATOR'S WEASEL.

Type locality. Mount Vernon, Skagit Valley, Skagit County, Washington.

Geogr. Distr. Coast of Oregon and Washington to Puget Sound.

***a. Putorius streator leptus* Merriam.**

Putorius streator leptus Merr., Proc. Biol. Soc. Wash., XVI, 1903, p. 76.

FEEBLE WEASEL.

Type locality. Silverton, Colorado.

Geogr. Distr. Range unknown.

Genl. Char. Similar to *P. streator*, but smaller; black tip to tail, 15 mm.

Color. Summer Pelage. Above uniform drab brown; end of tail black; under parts and inner side of limbs to wrists and ankles, white; rest of limbs and feet brown like the back; toes on fore feet white; those of hind feet mixed brown and white.

Measurements. Total length, 243; tail vertebrae, 64; hind foot, 31. Skull: basal length, 31.5; Hensel, 30.5; zygomatic breadth, 17.5; interorbital breadth, 7.5; palatal length, 13; postpalatal length, 18; length of tooth row with canine, 9.

1032. *Putorius muricus* Bangs.

Putorius (Arctogale) muricus Bangs, Proc. New Engl. Zool. Club, 1, 1899, p. 71. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 434. Zool. Ser.

MOUSING WEASEL.

Type locality. Echo, El Dorado County, Colorado.

Geogr. Distr. Colorado. Range unknown.

1033. *Putorius alleghanensis* Rhoads.

Putorius alleghanensis Rhoads, Proc. Acad. Nat. Scien. Phil., 1901, p. 751. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Suppl., p. 511. Zool. Ser.

ALLEGHANY MOUNTAINS WEASEL.

Type locality. Beallsville, Washington County, Pennsylvania.

Geogr. Distr. Known only from Washington and Allegheny Counties, Pennsylvania.

1034. *Putorius rixosus* Bangs.

Putorius rixosus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 21.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 345.

Zool. Ser.

PUGNACIOUS WEASEL.

Type locality. Osler, Saskatchewan, Canada.

Geogr. Distr. Hudson Bay to coast of Alaska; northern Minnesota to Montana.

a. *Putorius rixosus eskimo* Stone.

Putorius rixosus eskimo Stone, Proc. Acad. Nat. Scien. Phil.,

1900, p. 44. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,

1901, p. 345. Zool. Ser.

ESKIMO WEASEL.

Type locality. Point Barrow, Alaska.

Geogr. Distr. Northwestern Alaska. Range unknown.

1035. *Putorius arcticus* Merriam.

Putorius arcticus Merr., N. Am. Faun., No. 11, 1896, p. 15. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 345. Zool.

Ser.

ARCTIC WEASEL.

Type locality. Point Barrow, Alaska.

Geogr. Distr. Arctic coast and Tundras.

a. *Putorius arcticus kadiacensis* Merriam.

Putorius arcticus kadiacensis Merr., N. Am. Faun., No. 11, 1896,

p. 16. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,

p. 346. Zool. Ser.

KADIAK ISLAND WEASEL.

Type locality. Kadiak Island, Alaska.

Geogr. Distr. Known only from the type locality.

1036. *Putorius haidarum* Preble.

Putorius haidarum Preble, Proc. Biol. Soc. Wash., xii, 1898,
p. 169. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 351. Zoöl. Ser.

HAIDA WEASEL.

Type locality. Massett, Graham Island, Queen Charlotte Islands,
British Columbia, Canada.

Geogr. Distr. Queen Charlotte Islands, British Columbia, Canada.

1037. *Putorius noveboracensis* Emmons.

Putorius noveboracensis Emmons, Rep. Quadr. Mass., 1840, p. 45.
Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 346.
Zoöl. Ser.

NORTHERN WEASEL.

Type locality. Southern New York.

Geogr. Distr. Maine, south to North Carolina, west to Illinois.

a. *Putorius noveboracensis notius* Bangs.

Putorius noveboracensis notius Bangs, Proc. N. Engl. Zoöl. Club,
I, 1899, p. 53. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 346. Zoöl. Ser.

SOUTHERN WEASEL.

Type locality. Weaverville, Buncombe County, North Carolina.

Geogr. Distr. Eastern Middle States.

1038. *Putorius occisor* Bangs.

Putorius occisor Bangs, Proc. N. Engl. Zoöl. Club, I, 1899, p. 54.

Putorius noveboracensis occisor Elliot, Syn. N. Am. Mamm., F. C.
M. Pub., II, 1901, p. 347. Zoöl. Ser.

MURDEROUS WEASEL.

Type locality. Bucksport, near mouth of Penobscot River, Han-
cock County, Maine.

Geogr. Distr. New England States; Canada? Range unknown.

1039. *Putorius washingtoni* Merriam.

Putorius washingtoni Merr., N. Am. Faun., No. 11, 1896, p. 18. Elliot,
Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 347. Zoöl. Ser.

WASHINGTON WEASEL.

Type locality. Trout Lake, south base of Mt. Adams, Skamania
County, Washington.

Geogr. Distr. Washington. Range unknown.

1040. *Putorius peninsulæ* Rhoads.

Putorius peninsulæ Rhoads, Proc. Acad. Nat. Scien. Phil., 1894,
p. 152. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 347. Zoöl. Ser.

FLORIDA WEASEL.

Type locality. Hudson, Pasco County, fourteen miles north of Tarpon Springs, Hillsboro County, Florida.

Geogr. Distr. Florida Peninsula.

1041. *Putorius longicaudus* (Bonaparte).

Mustela (Putorius) erminea Rich., Faun. Bor. Amer., Mamm., 1, 1829, p. 46. (Part.)

Mustela longicauda Bonap., Charlesw. Mag. Nat. Hist., 11, 1838, p. 38.

Putorius longicaudus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 348. Zoöl. Ser.

LONG-TAILED WEASEL.

Type locality. Carlton House, on North Saskatchewan River, Saskatchewan, Canada.

Geogr. Distr. Great Plains from Kansas northward.

a. *Putorius longicaudus oribasus* Bangs.

Putorius (Arctogale) longicauda oribasus Bangs, Proc. N. Engl. Zoöl. Club, 1, 1899, p. 81.

Putorius longicaudus oribasus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 348. Zoöl. Ser.

MOUNTAIN WEASEL.

Type locality. Source of Kettle River, British Columbia, Canada. Altitude, 7,500 feet.

Geogr. Distr. British Columbia, Canada. Range unknown.

b. *Putorius longicaudus spadix* Bangs.

Putorius longicauda spadix Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 8.

Putorius spadix Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 348. Zoöl. Ser.

CHESTNUT-BROWN WEASEL.

Type locality. Fort Snelling, Hennepin County, Minnesota.

Geogr. Distr. Minnesota. Range unknown.

1042. *Putorius saturatus* Merriam.

Putorius saturatus Merr., N. Am. Faun., No. 11, 1896, p. 21.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 348. Zoöl. Ser.

RICHLY-COLORED WEASEL.

Type locality. Siskiyou, Jackson County, Oregon. Altitude, 4,000 feet.

Geogr. Distr. Oregon, Washington, and part of British Columbia, in the Cascade and Siskiyou Mountains.

1043. *Putorius arizonensis* Mearns.

Putorius arizonensis Mearns, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 234. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 349. Zoöl. Ser.

ARIZONA WEASEL.

Type locality. San Francisco forest near Flagstaff, Coconino County, Arizona.

Geogr. Distr. Sierra Nevada and Rocky Mountains into British Columbia, not north of Siskiyou Mountains in the Cascade Range.

1044. *Putorius alleni* Merriam.

Putorius alleni Merr., N. Am. Faun., No. 11, 1896, p. 24. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 349. Zoöl. Ser.

ALLEN'S WEASEL.

Type locality. Custer, Black Hills, Custer County, South Dakota.

Geogr. Distr. Black Hills, South Dakota. Range unknown.

1045. *Putorius xanthogenys* (Gray).

Mustela xanthogenys Gray, Ann. Mag. Nat. Hist., XI, 1st Ser., 1843, p. 118.

Putorius xanthogenys Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 349. Zoöl. Ser.

YELLOW-CHEEKED WEASEL.

Type locality. Southern California; San Diego? San Diego County.

Geogr. Distr. Both sides of the Sierra Nevada, California.

a. *Putorius xanthogenys mundus* Bangs.

Putorius xanthogenys mundus Bangs, Proc. N. Engl. Zoöl. Club, 1, 1899, p. 56. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 350. Zoöl. Ser.

DECORATED WEASEL.

Type locality. Point Reyes, Marin County, California.

Geogr. Distr. Northern California.

b. *Putorius xanthogenys oregonensis* Merriam.

Putorius xanthogenys oregonensis Merr., N. Am. Faun., No. 11, 1896, p. 25. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 350. Zoöl. Ser.

OREGON WEASEL.

Type locality. Grant's Pass, Rogue River Valley, Josephine County, Oregon.

Geogr. Distr. Oregon. Range unknown.

1046. *Putorius frenatus* (Lichtenstein).

Mustela frenata Licht., Darst. neuer oder wenig bekannt. Säugeth., 1832, pl. XLII.

Putorius frenatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 350. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 532, figs. 101, LXXV. Zoöl. Ser.

BRIDLED WEASEL.

Type locality. Valley of Mexico, near City of Mexico, Mexico.

Geogr. Distr. From State of Mexico north into Texas.

a. *Putorius frenatus neomexicanus* Barber & Cockerell.

Putorius frenatus neomexicanus Barb. & Cockerell, Proc. Acad. Nat. Scien. Phil., 1898, p. 188. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 351. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 533. Zoöl. Ser.

RIO GRANDE BRIDLED WEASEL.

Type locality. Armstrong's Lake, Mesilla Valley, Donna Ana County, New Mexico.

Geogr. Distr. Northeastern Mexico to 100 miles north in the Rio Grande Valley, New Mexico.

b. *Putorius frenatus goldmani* Merriam.

Putorius frenatus goldmani Merr., N. Am. Faun., No. 11, 1896, p. 28. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 533. Zoöl. Ser.

GOLDMAN'S BRIDLED WEASEL.

Type locality. Pinabete, State of Chiapas, Mexico. Altitude, 8,200 feet.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.

c. *Putorius frenatus leucoparia* Merriam.

Putorius frenatus leucoparia Merr., N. Am. Faun., No. 11, 1896, p. 29. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 534. Zoöl. Ser.

MICHOACAN BRIDLED WEASEL.

Type locality. Patzcuaro, State of Michoacan, Mexico.

Geogr. Distr. State of Michoacan, Mexico. Range unknown.

1047. *Putorius tropicalis* Merriam.

Putorius tropicalis Merr., N. Am. Faun., No. 11, 1896, p. 30. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 531. Zoöl. Ser.

TROPICAL WEASEL.

Type locality. Jico, State of Vera Cruz, Mexico.

Geogr. Distr. State of Vera Cruz, Mexico, and along the coast to Guatemala.

a. *Putorius tropicalis perdis* Merriam.

Putorius tropicalis perdis Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 67. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 531. Zool. Ser.

TEAPA WEASEL.

Type locality. Teapa, State of Tabasco, Mexico.

Geogr. Distr. Known only from the type locality.

1048. *Putorius affinis* (Gray).

Mustela affinis Gray, Ann. Mag. Nat. Hist., 4th Ser., xiv, 1874, p. 375.

Putorius affinis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 534. Zool. Ser.

ALLIED WEASEL. *Collaraja* in Costa Rica.

Type locality. Colombia.

Geogr. Distr. Costa Rica south into South America.

Subfamily III. **Lutrinæ.**

Genus 131. **Lutra. Otters.**

Lutra Briss., Regn. Anim., 2d ed., 1762, p. 201. Type *Mustela lutra* Linnæus.

Lataxina Gray, List. Spec. Mamm. Brit. Mus., 1843, pp. xxi, 70.

Lataxia Gerv., Hist. Nat. Mamm., II, 1855, p. 118.

1049. *Lutra canadensis* (Schreber).

Mustela lutra canadensis Schreb., Säugth., 1776, pl. cxxvi B; Text, 1778.

Mustela (Lutra) canadensis Kerr, Anim. Kingd., 1792, No. 337.

Lutra hudsonica F. Cuv., Suppl. Buffon, I, 1831, p. 194.

Lutra canadensis Aud. & Bachm., N. Am. Quad., III, 1853, p. 97, pl. cxxii (*Lataxina mollis* Gray). Elliot, Syn. N. Am. Mamm.,

F. C. M. Pub., II, 1901, p. 352. Zool. Ser.

CANADA OTTER.

Type locality. Eastern Canada. Exact locality unknown.

Geogr. Distr. Eastern North America, north of North Carolina on the Atlantic coast.

a. *Lutra canadensis lataxina* (F. Cuvier).

Lutra lataxina F. Cuv., Dict. Scien. Nat., xxvii, 1823, p. 242.

Lutra canadensis lataxina Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 352. Zool. Ser.

SOUTHERN OTTER.

Type locality. South Carolina.

Geogr. Distr. Eastern North America from North Carolina to Alabama and Mississippi.

b. Lutra canadensis vaga (Bangs).

Lutra hudsonica vaga Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 224.

Lutra canadensis vaga Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 352. Zoöl. Ser.

FLORIDA OTTER.

Type locality. Micco, Brevard County, Florida.

Geogr. Distr. Eastern Georgia and Florida.

c. Lutra canadensis pacifica (Rhoads).

Lutra hudsonica pacifica Rhoads, Trans. Am. Philos. Soc., N. S., XIX, 1898, p. 429.

Lutra canadensis pacifica Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 353. Zoöl. Ser.

PACIFIC OTTER.

Type locality. Lake Kichelos, Kittitas County, Washington. Altitude, 8,000 feet.

Geogr. Distr. Pacific slopes. California to Alaska.

d. Lutra canadensis sonora (Rhoads).

Lutra hudsonica sonora Rhoads, Trans. Am. Philos. Soc., N. S., XIX, 1898, p. 431.

Lutra canadensis sonora Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 353, pl. xxxvii. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 535, fig. LXXVI. Zoöl. Ser.

MEXICAN OTTER.

Type locality. Montezuma Well, Beaver Creek, Yavapai County, Arizona.

Geogr. Distr. State of Sonora, Mexico, to Wyoming.

1050. *Lutra periclyzomæ* Elliot.

Lutra periclyzomæ Elliot, Proc. Biol. Soc. Wash., XVIII, 1905, p. 80.

SEA-GIRT OR ISLAND OTTER.

Type locality. From Gawi, west coast of Moresby Isl., Queen Charlotte Islands, British Columbia, Canada. No. 491, Field Columbian Mus., Chicago.

Genl. Char. Skull: size large; intertemporal region long and narrow, greatly constricted for its entire length; in young animals this constriction is not so apparent. Rostrum short and very broad;

postorbital processes greatly elongated; braincase without crests, rounded, and widest posteriorly; bullæ small and flat, barely rising above the level of the basioccipital; pterygoid fossa broad for its entire length, the sides nearly straight, but widening gradually to tips of pterygoid processes where the width is greatest; upper molars very large, the cusps on exterior side very high and acute; last molar square-shaped, slightly widest on interior edge.

Measurements. Skull: total length, 122; Hensel, 107; zygomatic width, 81; intertemporal constriction, 20; width across postorbital processes, 40; width of rostrum at canines, 30.5; palatal length, 55; length of upper tooth row, anterior edge of canine to posterior edge of last molar, 40; length of nasals, 17.5; total length of mandible, angle to tips of incisors, 76; length of lower tooth row, anterior edge of canine to posterior edge of last molar, alveolar border, 46; length of canine, 13; length of lower carnassial, 15.

1051. *Lutra annectens* Forsyth-Major.

Lutra annectens Forsyth-Major, Zool. Anzeiger, xx, 1897, p. 142.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 536, pl. LI. Zoöl. Ser.

CENTRAL AMERICAN OTTER. *Nutria* in Costa Rica.

Type locality. Rio de Tepic, Territorio de Tepic, State of Jalisco, Mexico.

Geogr. Distr. Mexico to Costa Rica. Limits of range unknown.

1052. *Lutra degener* Bangs.

Lutra degener Bangs, Proc. Biol. Soc. Wash., XII, 1898, p. 35.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 353. Zoöl. Ser.

DEGENERATE OTTER.

Type locality. Bay St. George, Newfoundland.

Geogr. Distr. Newfoundland.

Genus 132. *Latax*. Sea Otters.

Latax Gloger, Nov. Acta Phys. Med. Acad. Cæs. Leopold.-Carol., XIII, Pt. II, 1827, p. 511. Type *Lutra marina* Erxleben = *Mustela lutris* Linnæus.

Pusa Oken, Lehrb. Naturg., Theil III, 2te Abth., 1816, p. 986. (nec Scopoli.)

Enhydra Flem., Philos. Zoöl., II, 1822, p. 187. (nec *Enhydris* Merrem, Rept.)

1053. *Latax lutris* (Linnæus).

Mustela lutris Linn., Syst. Nat., I, 1758, p. 45; I, 1766, p. 66.

Lutra marina Erxl., Syst. Regn. Anim., 1777, p. 445.

Pusa orientalis Oken, Lehrb. Naturg., Theil III, 2te Abth., 1816, p. 986.

Lutra stelleri Less., Man. Mamm., 1827, p. 156.

Enydriis (sic) gracilis Fisch., Syn. Mamm., 1829, p. 229.

Latax lutris Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 354, pl. XXXVIII. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 537, pl. LII. Zoöl. Ser.

NORTHERN SEA OTTER.

Type locality. "America Septentrionali." Coasts of Bering Sea.

Geogr. Distr. Coasts of Bering Sea and of the north Pacific Ocean, south on American coast possibly to California.

a. Latax lutris nereis Merriam.

Latax lutris nereis Merr., Proc. Biol. Soc. Wash., XVII, 1904, p. 159.
SAN MIGUEL ISLAND SEA OTTER.

Type locality. San Miguel Island, Santa Barbara Islands, Santa Barbara County, California.

Geogr. Distr. Santa Barbara Islands; also probably south to the coast of Lower California, and it may be the species found rarely among the Kelp beds of San Tomas and San Quentin Bays.

Cranial Characters. Skull alone known. This is "broad and high, with long and high sagittal crest and swollen braincase. Compared with *lutris* the following differences appear: Skull as a whole less flattened, braincase more swollen and rounded, the sides (viewed from above) more convex and swollen, especially behind the constriction; anterior part of zygomata more broadly and squarely expanded; basioccipital forming an angle with basisphenoid; coronoid process sloping strongly backward; sagittal crest much higher and more decurved posteriorly; inner cusp of large upper premolar (*pm.* 3) elongated along anterior part of inner lobe (instead of conical) and showing a tendency to subdivide into two parts; first lower molar broader and more broadly truncate posteriorly."

Measurements. "The specimen in the flesh measures six feet in length." (Merr. l. c.)

Order VIII. **Pinnipedia. Sea-lions, Seals, etc.**

Family I. **Otariidæ. Sea-lions.**

Genus 133. **Eumetopias.**

Eumetopias Gill, Proc. Essex Institute, v, 1866, pp. 7, 11. Type
Otaria stelleri Lesson.

1054. Eumetopias jubata (Schreber).

Leo marinus Steller, Nov. Comm. Petrop., xi, 1751, p. 360.

Phoca jubata Schreber, Säugth., iii, 1778, p. 300, pl. LXXXIII B.

Otaria jubata Péron, Voy. Terr. Austr., ii, 1816, p. 40.

Otaria stelleri Lesson, Dict. Class. Hist. Nat., xiii, 1828, p. 420.

Phoca leonina Pall., Zoog. Rosso-Asiat., i, 1831, p. 104.

?*Arctocephalus monteriensis* Gray, Proc. Zool. Soc., 1859, p. 358,
pl. LXXII.

Eumetopias stelleri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii,
1901, p. 355, pl. xxxix. Zool. Ser.

STELLER'S SEA-LION.

Type locality. Bay of San Francisco.

Geogr. Distr. Shores of California and of North Pacific Ocean to
Berings Straits, Japan.

Genus 134. **Zalophus.**

Zalophus Gill, Proc. Essex Institute, v, 1866, pp. 7, 11. Type
Otaria gillespii McBain = *Otaria californiana* Lesson.

Neophoca Gray, Ann. Mag. Nat. Hist., 3d Ser., xviii, 1866, p.
231.

1055. Zalophus californianus (Lesson).

Otaria californiana Less., Dict. Class. Hist. Nat., xiii, 1828, p. 420.

Otaria gillespii McBain, Proc. Roy. Soc. Edinb., i, 1858, p. 422.

Zalophus californianus Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
ii, 1901, p. 356, pl. xxxix. Zool. Ser. *Id.* Mamm. Middle
Amer. & W. Indies, F. C. M. Pub., iv, Pt. ii, 1904, p. 539, fig.
LXXVII, pl. LIII. Zool. Ser.

CALIFORNIA SEA-LION.

Type locality. California.

Geogr. Distr. West coast of the United States from Bay of San
Francisco to Coronado and Tres Marias Islands, and coast of Lower
California, Mexico.

Genus 135. **Callotaria. Fur Seal.**

Callotaria Palmer, Proc. Biol. Soc. Wash., VII, 1892, p. 156. Type
Phoca ursina Linnæus.

Callorhinus Gray, Proc. Zool. Soc., 1859, p. 359. (nec Blanchard,
Entomol.; nec Girard, Herpetology.)

Arctocephalus Gill, Proc. Essex Inst., v, 1866, pp. 7, 11. (nec
F. Cuv.)

Otoes Palmer, Proc. Biol. Soc. Wash., XIV, 1901, p. 133. (nec
Fischer.)

1056. Callotaria alascana (Jordan & Clark).

Callorhinus alascanus Jord. & Clark, The Fur Seals and Fur Seal
Isl., Pt. 3, 1899, p. 2.

Callotaria ursina Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,
1901, p. 357, pl. XL. (nec Linnæus.)

PRIBILOF ISLANDS FUR SEAL.

Type locality. Pribilof Islands, Bering Sea.

Geogr. Distr. Pacific shores of North America; Pribilof Islands,
Bering Sea.

Genus 136. **Arctocephalus. Sea Bears.**

Arctocephalus F. Cuv., Dict. Scien. Nat., xxxix, 1826, p. 554. Type

**Phoca antarctica* Thunberg.

Halarctus Gill, Proc. Essex Inst., v, 1866, pp. 7, 11.

Arctophoca Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1866,
p. 276, Tab. II, A. B. C.

Euotaria Gray, Ann. Mag. Nat. Hist., 3d Ser., xviii, 1866,
p. 236.

Gypsophoca Gray, Ann. Mag. Nat. Hist., 3d Ser., xviii, 1866, p. 236.

1057. Arctocephalus townsendi Merriam.

Arctocephalus townsendi Merr., Proc. Biol. Soc. Wash., XI, 1897,
p. 178. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 544, fig. LXXIX, pls. LX, LXI, LXII.
Zool. Ser.

GUADALUPE FUR SEAL.

Type locality. Guadalupe Island, off coast Lower California,
Mexico.

Geogr. Distr. Guadalupe and San Benito Island, off coast Lower
California, Mexico.

*See Allen, Princt. Univ. Patagon. Exped., Zool., III, 1905, p. 120.

Family II. **Odontobænidae.**Genus 137. **Odontobænus. Walrus.**

Odobenus (*sic*) Briss., Reg. Anim., 2d ed., 1762, pp. 12, 30. Type
Phoca rosmarus Linnæus.

1058. Odontobænus rosmarus (Linnæus).

Phoca rosmarus Linn., Syst. Nat., I, 1758, p. 38.

Trichechus rosmarus Linn., Syst. Nat., I, 1766, p. 49. Elliot, Syn.
N. Am. Mamm., F. C. M. Pub., II, 1901, p. 358, pl. xli. Zool.
Ser.

ATLANTIC WALRUS.

Type locality. Eastern part of Arctic Sea. North Atlantic.

Geogr. Distr. Coast of Labrador north to Arctic Ocean; shores
of Greenland, boreal islands and polar areas.

1059. Odontobænus obesus (Illiger).

Trichechus rosmarus Shaw, Gen. Zool., I, 1800, p. 234, fig. 68.
(Part.)

Trichechus obesus Illig., Abhandl. d. Akad. Berl., 1815, pp. 64, 70,
75. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 358. Zool. Ser.

Trichechus divergens Illig., Abhandl. d. Akad. Berl., 1815, p. 68.

Rosmarus cookii Fremery, Bydrag. tot de naturk. Wetensch., VI,
1831, p. 385.

Rosmarus arcticus Pall., Zoog. Rosso-Asiat., 1831, p. 269, pls. xxviii,
xxix.

PACIFIC WALRUS.

Type locality. Western Arctic Seas.

Geogr. Distr. Northwest coast of North America in Arctic Ocean
and Bering Sea and certain of the latter's islands; Kotzebue and Norton
sounds and Bristol Bay; also on northeastern coast of Asia.

Family III. **Phocidae.**Subfamily I. **Cystophorinæ.**Genus 138. **Mirounga. Sea Elephants.**

Mirounga Gray, in Griff., Cuvier's Anim. Kingd., v, 1827, p. 179.
(Part.) Type *Phoca proboscidea* Péron = *Phoca leonina* Lin-
næus.

Macrorhinus F. Cuv., Dict. Scien. Nat., xxxix, 1826, p. 552. (nec
Latreille, Coleopt., 1825.)

Rhinophoca Wagl., Nat. Syst. Amph., 1830, p. 27.

Morunga Gray, List Ost. Spec. Brit. Mus., 1847, p. 33.

1060. *Mirounga angustirostris* (Gill).

Macrorhinus angustirostris Gill, Proc. Chicago Acad. Scien., 1866, p. 33. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 359, pls. XLII, XLIII, XLIV. Zool. Ser.

Mirounga angustirostris Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 545, fig. LXXX, pls. LXIII, LXIV, LXV, LXVI. Zool. Ser.

ELEPHANT SEAL.

Type locality. St. Bartholomew's Bay, Lower California, Mexico.

Geogr. Distr. Formerly from Cape San Lazaro, Lower California, Mexico, to Point Reyes, Marine County, California.

Genus 139. **Cystophora. Hooded Seals.**

Cystophora Nilss., Skand. Faun., I, 1820, p. 382. Type *Cystophora borealis* Nilsson = *Phoca cristata* Erxleben.

Stemmatope F. Cuv., Mém. Mus. Hist. Nat. Paris, XI, 1824, p. 196.

Stemmatopus F. Cuv., Dict. Scien. Nat., XXXIX, 1826, p. 550.

1061. *Cystophora cristata* (Erxleben).

Phoca cristata Erxl., Syst. Reg. Anim., 1777, p. 590.

Phoca cucullata Bodd., Elench. Anim., 1785, p. 107.

Cystophora borealis Nilss., Skand. Faun., 1820, p. 383.

Phoca mitrata G. Cuv., Oss. Foss., 3me ed., V, 1825, p. 210, pl. XVIII, fig. 3.

Phoca isidorei Less., Rev. Zool., 1843, p. 256.

Cystophora cristata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 360, pl. XLV. Zool. Ser.

HOODED SEAL.

Type locality. Southern Greenland.

Geogr. Distr. Colder portions of the North Atlantic Ocean; Arctic Ocean. Rarely found south of Newfoundland.

Subfamily II. **Phocinæ.**

Genus 140. **Halichærus. Gray Seals.**

Halichærus Nilss., Skand. Faun., I, 1820, p. 376. Type *Phoca grypus* Fabricius.

Pusa Gill, Johns. New Univ. Cyclop., 181, 1877, p. 1226. (nec Scopoli.)

1062. Halichærus grypus (Fabricius).

Phoca grypus Fabr., Skriv. af Natur.-Selsk., 1, 2, 1791, p. 167, pl. XIII, fig. 4. (Skull.)

Halichærus grypus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 361, pl. XLVI. Zoöl. Ser.

GRAY SEAL.

Type locality. Iceland?

Geogr. Distr. North Atlantic from Nova Scotia to Greenland, east to British Islands.

Genus 141. **Phoca. Hair Seals.**

Phoca Linn., Syst. Nat., 1, 1758, p. 37. Type *Phoca vitulina* Linnæus.

Pusa Scop., Intr. Hist. Nat., 1777, p. 490.

Calocephalus F. Cuv., Dict. Scien. Nat., xxxix, 1826, p. 544.

Pagophilus Gray, Voy. Erebus & Terror, Zoöl., 1844, p. 3.

Pagomys Gray, Proc. Zoöl. Soc., 1864, p. 31.

Erignathus Gill, Proc. Essex Inst., v, 1866, pp. 5, 9.

Haliphilus Gray, Ann. Mag. Nat. Hist., xvii, 4th Ser., 1866, p. 446.

Histriophoca Gill, Amer. Nat., vii, 1873, p. 179.

Subgenus A. **Erignathus.****1063. Phoca barbata Fabricius.**

Phoca barbata Fabr., Müller's Zool. Dan. Prod., viii, 1776. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 362, pl. XLVI. Zoöl. Ser.

Phoca leporina Lepech., Act. Acad. Petrop., 1, 1777, p. 264, pls. 8, 9. (juv.)

Phoca parsonsi Less., Dict. Class. Hist. Nat., xiii, 1828, p. 414.

Phoca lepechini Less., Dict. Class. Hist. Nat., xiii, 1828, p. 415.

Phoca nautica Pallas, Zoog. Rosso-Asiat., 1, 1831, p. 108.

Phoca albigena Pallas, Zoog. Rosso-Asiat., 1831, p. 109.

Phoca naurica Gray, Cat. Seals & Whales, Suppl., 1871, p. 3.

BEARDED SEAL.

Type locality. Coast of Cornwall, England.

Geogr. Distr. Circumpolar, boreal; south on eastern coast of North America to Newfoundland.

Subgenus B. **Histriophoca.****1064. Phoca fasciata Zimmermann.**

Phoca fasciata Zimm., Geog. Gesch., iii, 1783, p. 277. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 362, pls. XLVII, XLVIII. Zoöl. Ser.

Phoca equestris Pallas, Zoog. Rosso-Asiat., 1, 1831, p. 111.

RIBBON SEAL.

Type locality. Kurile Islands, Japan.

Geogr. Distr. Bering Sea south to the Aleutian Islands and to the island of Saghalien on the Asiatic coast, and Kurile Islands, Japan.

Subgenus C. *Phoca*.

1065. *Phoca vitulina* Linnaeus.

Phoca vitulina Linn., Syst. Nat., 1, 1758, p. 38; 1, 1766, p. 56.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 363, pl. XLIX. Zoöl. Ser.

Phoca variegata Nilss., Skand. Faun., 1, 1820, p. 359.

Phoca scopulicola Thienem., Reis. Nord. Eur., 1, 1824, p. 59, pl. v. (ad male.)

Phoca littorea Thienem., Reis. Nord. Eur., 1, 1824, p. 61, pl. vi (male), pls. vii, viii (skulls).

Phoca pealei Gill, Proc. Essex Inst., v, 1866, pp. 4, 13.

Phoca fætida Bartl., Proc. Zoöl. Soc., 1868, p. 402.

HARBOR SEAL.

Type locality. Coast of Europe.

Geogr. Distr. Coast of North Atlantic Ocean from New York to the Arctic Ocean; coast of Greenland and other eastern boreal islands. Northern coast of Europe.

1066. *Phoca richardi* (Gray).

Halicyon richardii Gray, Proc. Zoöl. Soc., 1864, p. 28, fig. 1.

Phoca richardii Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 491.

Phoca largha Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 363. Zoöl. Ser. (nec Pallas.)

RICHARD'S HARBOR SEAL.

Type locality. Vancouver Island.

Geogr. Distr. Northern Pacific Ocean, Bering Sea.

a. *Phoca richardi pribilofensis* Allen.

Phoca richardii pribilofensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 495.

PRIBILOF ISLANDS SEAL.

Type locality. St. Paul Island, Pribilof Island, Bering Sea.

Geogr. Distr. Bering Sea. Range unknown.

Genl. Char. Dentition weaker than that of *P. richardi*.

Color. Above silvery yellowish white, spotted with dark brown and blackish, confluent from the back of the head to middle of back

where the general color is blackish; beneath pale ochraceous varied with paler streaks and blotched with dusky, the spots blacker and more distinct on the throat and sides of neck; sides paler and heavily blotched with blackish.

Measurements. None given.

b. Phoca richardii geronimensis Allen.

Phoca richardii geronimensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 495. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 542, fig. LXXVIII (*P. richardii*), pls. LIV, LV (*P. r. geronimensis*). Zoöl. Ser.

SAN GERONIMO HARBOR SEAL.

Type locality. San Geronimo Island, Lower California, Mexico.

Geogr. Distr. San Geronimo Island to Santa Barbara Island, Santa Barbara County, California. Range unknown in North Pacific Ocean.

1067. *Phoca stejnegeri* Allen.

Phoca stejnegeri Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1902, p. 485.

STEJNEGER'S HARBOR SEAL.

Type locality. Shores of Bering Island.

Geogr. Distr. Bering Sea and shores of Kamschatka.

Genl. Char. Similar to *P. vitulina*, but larger. A deep groove for the maxillary nerve runs from the infraorbital foramen to a point opposite the middle of upper premolar third.

Color. Light phase. Above deep straw yellow spotted with black, beneath deeper yellow and more sparsely spotted. Whiskers yellowish brown, nails brownish black.

Dark phase. Ground color deep yellow, but the black spots occupy four-fifths of dorsal surface, and over one-half of the ventral surface, beneath the spots on the median half of the dorsal region are irregular spots or bands of same color. Dark patches on limbs.

Measurements. Nose to end of tail, 1,545; to end of hind flipper, 1,760; tail, 140; hind foot, 335.

Subgenus D. *Pusa*.

1068. *Phoca hispida* Schreber.

Phoca hispida Schreb., Säugth., III, 1776, p. 312, pl. LXXXVI.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 364.

Zoöl. Ser.

Phoca fetida Fabr., Müller's Zool. Dan. Prod., VIII, 1776.

Phoca annellata Nilss., Skand. Faun., I, 1820, p. 362.

Calocephalus discolor F. Cuv., Dict. Sci. Nat., xxxix, 1826, p. 554.

Phoca schreberi Less., Dict. Class. Hist. Nat., xiii, 1828, p. 414.

Phoca frederici Less., Dict. Class. Hist. Nat., xiii, 1828, p. 416.

Callocephalus dimidiatus Gray, Cat. Seals & Whales, 1866, p. 22.

RINGED SEAL.

Type locality. Greenland.

Geogr. Distr. Circumpolar; south to Labrador on the Atlantic coast, and northern shores of Bering Sea on the Pacific coast.

Subgenus E. *Pagophilus*.

1069. *Phoca groenlandica* Fabricius.

Phoca groenlandica Fabr., Müller's Zool. Dan. Prod., viii, 1776.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., ii, 1901, p. 364, pl. XLIX. Zool. Ser.

Phoca oceanica Lepech., Act. Acad. Petrop., i, 1777, p. 295, pls. vii, viii.

Phoca groenlandica var. *nigra* Kerr., Anim. Kingd., 1792, p. 125.

Phoca semilunaris Bodd., Elench. Anim., 1785, p. 170.

Phoca albicauda Desm., Mamm., Suppl., 1822, p. 839.

Phoca lagura G. Cuv., Oss. Foss., v, 1825, p. 206. (juv.)

Phoca mulleri Less., Dict. Class. Hist. Nat., xiii, 1828, p. 413.

Phoca desmaresti Less., Dict. Class. Hist. Nat., xiii, 1828, p. 416.

Phoca pilayi Less., Dict. Class. Hist. Nat., xiii, 1828, p. 416.

Phoca dorsata Pallas, Zoog. Rosso-Asiat., i, 1811, p. 112.

Phoca albin Alex., Mem. Acad. Torino, ii, 1850, p. 141, pls. 1-4. (Skeleton.)

Phoca annellata Gaim., Voy. en Islands, Atlas, 1851, pl. xi, fig. 9. (nec Nilsson.)

HARP SEAL.

Type locality. Greenland.

Geogr. Distr. Circumpolar; south to Newfoundland in Atlantic Ocean, and in Bering Sea and north Pacific Ocean possibly to Sitka.

Genus 142. *Monachus*.

Monachus Flem., Phil. Zool., ii, 1822, p. 187. Type *Phoca monachus* Hermann.

Pelagios F. Cuv., Mém. Mus. Hist. Nat. Paris, xi, 1824, p. 193, pl. 13, fig. 2.

Pelagocyon Glog., Hand-u. Hilfsb. Naturg., 1841, pp. xxxiv, 163.

Rigoon Gistel, Naturg. Thiere, 1848, p. x.

Heliophoca Gray, Ann. Mag. Nat. Hist., 2d Ser., xiii, 1854, p. 201.

1070. *Monachus tropicalis* (Gray).

Phoca tropicalis Gray, Cat. Seals Brit. Mus., 1850, p. 28.

Monachus tropicalis Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 543, pls. LVI, LVII, LVIII, LIX.

Zoöl. Ser.

WEST INDIAN SEAL.

Type locality. Island of Jamaica.

Geogr. Distr. Formerly from islands off the coast of Yucatan, Mexico, to Bay of Honduras, and eastward to Jamaica, Cuba, Florida Keys, and the Bahamas. At present found only on some Keys north of Cuba and on some scattered islands between Cuba and Yucatan.

Order IX. **Insectivora. The Insectivores.**

Family I. **Soricidae. Shrews.**

Subfamily I. **Soricinae.**

Genus 143. **Sorex. Common Shrews.**

Sorex Linn., Syst. Nat., I, 1758, p. 53; I, 1766, p. 73. Type *Sorex araneus* Linnæus.

1071. Sorex personatus I. Geoff. St. Hilaire.

Sorex personatus I. Geoff. St. Hil., Mém. du Mus. Hist. Nat. Paris, xv, 1827, pp. 122-125. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 366. Zoöl. Ser.

Sorex forsteri Rich., Zoöl. Journ., III, 1828, p. 516.

Sorex cooperi Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 388, pl. xxiv, fig. 7.

Sorex fimbripes Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 391, pl. xxiv, fig. 8.

Amphisorex lesueuri Duvern., Mag. Zool., Mamm., 1842, p. 33, pl. I.

Sorex platyrhynchus Linsley, Sillim. Am. Journ. Scien., XLIII, 1842, p. 346.

Otisorex platyrhinus DeKay, Zoöl. N. Y., I, 1842, p. 22, pl. v, fig. 1.

Sorex haydeni Baird, N. Am. Mamm., 1857, p. 29.

Sorex richardsoni Dobson, Mon. Insectiv., I, Pt. III, 1890, pl. xxiii, fig. 9. (nec Bachm.)

Sorex idahoensis Merr., N. Am. Faun., No. 5, 1891, p. 32.

MASKED SHREW.

Type locality. Eastern United States.

Geogr. Distr. New England to Alaska and south in high mountains to Tennessee and North Carolina. Not found in the southern Rocky Mountains or in the Cascade or Sierra Ranges.

a. Sorex personatus streatori Merriam.

Sorex personatus streatori Merr., N. Am. Faun., No. 10, 1895, p. 62.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 367. Zoöl. Ser.

STREATOR'S SHREW.

Type locality. Yakutat, Alaska.

Geogr. Distr. Range unknown.

b. Sorex personatus arcticus Merriam.

Sorex personatus arcticus Merr., Proc. Wash. Acad. Sci., 11, 1900, p. 17. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 368. Zoöl. Ser.

ARCTIC SHREW.

Type locality. St. Michaels, Norton Sound, Alaska.

Geogr. Distr. Northwestern Alaska.

1072. *Sorex richardsoni* Bachman.

Sorex parvus Richard., Faun. Bor. Amer., 1, Mamm., 1829, p. 8. (nec Say.)

Sorex richardsonii Bachm., Jour. Acad. Nat. Scien. Phil., VII, 1837, p. 383, pl. xxiv, fig. 5. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 368. Zoöl. Ser.

RICHARDSON'S SHREW.

Type locality. Unknown. Plains of the Saskatchewan? Canada.

Geogr. Distr. Northern Minnesota, and Saskatchewan Plains.

1073. *Sorex tundrensis* Merriam.

Sorex tundrensis Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 16. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 368. Zoöl. Ser.

TUNDRA SHREW.

Type locality. St. Michaels, Norton Sound, Alaska.

Geogr. Distr. Northwest coast of Alaska. Range unknown.

1074. *Sorex sphagnicola* Coues.

Sorex sphagnicola Coues, Bull. U. S. Geol. & Geogr. Surv., 111, 1877, p. 650. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 368. Zoöl. Ser.

SPHAGNUM MOSS SHREW.

Type locality. Lat. 60°, vicinity of Fort Liard, northwestern British Columbia, Canada.

Geogr. Distr. British Columbia to Hudson Bay, Arctic America, Canada.

1075. *Sorex fumeus* Miller.

Sorex platyrhinus Dobson, Mon. Insectiv., 1, Pt. III, 1890, pl. xxiii, fig. 5. (nec DeKay.)

Sorex fumeus Miller, N. Am. Faun., No. 10, 1895, p. 50. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 369. Zoöl. Ser.

SMOKY SHREW.

Type locality. Peterboro, Madison County, New York.

Geogr. Distr. Eastern United States, Nova Scotia, New Brunswick west to Ontario and the Great Lakes.

1076. *Sorex macrurus* Batchelder.

Sorex macrurus Batchelder., Proc. Biol. Soc. Wash., x, 1896,
p. 133. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 369. Zool. Ser.

LONG-TAILED SHREW.

Type locality. Beedes (Keene Heights), Essex County, New York.

Geogr. Distr. Northern New York. Range unknown.

1077. *Sorex setosus* Elliot.

Sorex setosus Elliot, Pub. Field Columb. Mus., I, 1899, p. 274.
Zool. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 369. Zool. Ser.

SPINY SHREW.

Type locality. Happy Lake, Olympic Mountains, Clallam County, Washington.

Geogr. Distr. Known only from the type locality.

1078. *Sorex vagrans* Baird.

Sorex vagrans Baird, N. Am. Mamm., 1857, p. 15, pl. xxvi, fig.
1675. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901,
p. 370. Zool. Ser.

Sorex suckleyi Baird, N. Am. Mamm., 1857, p. 18, pl. xxvii,
fig. 1677.

WANDERING SHREW.

Type locality. Shoalwater Bay, Washington.

Geogr. Distr. Southern British Columbia, western Washington and Oregon, and northern California to Monterey on the coast and to Fort Crook in the mountains.

a. *Sorex vagrans dobsoni* (Merriam).

Sorex dobsoni Merr., N. Am. Faun., No. 5, 1891, p. 33, pl. iv, fig. 2.

Sorex vagrans dobsoni Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
II, 1901, p. 370. Zool. Ser.

DOBSON'S SHREW.

Type locality. Saw Tooth or Alturas Lake, east base of the Saw Tooth Mountains, central Idaho. Altitude, 7,200 feet.

Geogr. Distr. Rocky Mountains in northern Idaho, and western Montana, also in Big Snowy and Prior Mountains, Montana, Big Horn Mountains in Wyoming, and Wahsatch Mountains, Utah.

b. *Sorex vagrans monticola* (Merriam).

Sorex monticolus Merr., N. Am. Faun., No. 3, 1890, p. 43.

Sorex vagrans monticola Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 371. Zool. Ser.

MOUNTAIN SHREW.

Type locality. San Francisco Mountains, Coconino County, Arizona. Altitude, 11,500 feet.

Geogr. Distr. Arizona. Range unknown.

1079. *Sorex amoenus* Merriam.

Sorex amoenus Merr., N. Am. Faun., No. 10, 1895, p. 69. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 371. Zool. Ser.

CHARMING SHREW.

Type locality. Mammoth Pass, head of Owens River, east slope of the Sierra Nevada, California. Altitude, 10,000 feet.

Geogr. Distr. Northern California.

1080. *Sorex vancouverensis* Merriam.

Sorex vancouverensis Merr., N. Am. Faun., No. 10, 1895, p. 70.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 371.

Zool. Ser.

VANCOUVER ISLAND SHREW.

Type locality. Goldstream, Vancouver Island, British Columbia, Canada.

Geogr. Distr. Vancouver Island, British Columbia, Canada.

1081. *Sorex nevadensis* Merriam.

Sorex nevadensis Merr., N. Am. Faun., No. 10, 1895, p. 71. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 371. Zool. Ser.

NEVADA SHREW.

Type locality. Reese River, Lander County, Nevada.

Geogr. Distr. Great Basin, Nevada.

1082. *Sorex orizabæ* Merriam.

Sorex orizabæ Merr., N. Am. Faun., No. 10, 1895, p. 71. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., 11, Pt. 11,

1904, p. 550. Zool. Ser.

MINUTE SHREW.

Type locality. Mount Orizaba, State of Puebla, Mexico. Altitude, 9,500 feet.

Geogr. Distr. Southern Mexico, States of Puebla, Tlaxcala, Vera Cruz, Mexico, and Michoacan.

1083. *Sorex obscurus* Merriam.

Sorex vagrans similis Merr., N. Am. Faun., No. 5, 1891, p. 34, pl. 11, fig. 3. (nec Hensel.)

Sorex obscurus Merr., N. Am. Faun., No. 10, 1895, p. 72, pl. VIII,

figs. 1, 1a. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,

1901, p. 371. Zool. Ser.

DUSKY SHREW.

Type locality. Timber Creek, Salmon River Mountains, Idaho. Altitude, 8,200 feet.

Geogr. Distr. British Columbia, and mountains of western Washington, Montana, Wyoming, Utah, and Colorado, south in California, to Mt. Whitney.

a. *Sorex obscurus longicaudus* Merriam.

Sorex obscurus longicauda Merr., N. Am. Faun., No. 10, 1895, p. 74.

Sorex obscurus longicaudus Elliot, Syn. N. Am. Mamm., F. C. M.

Pub., II, 1901, p. 372. Zool. Ser.

LONG-TAILED SHREW.

Type locality. Wrangel, Alaska.

Geogr. Distr. Coast of southeast Alaska from Wrangel southward; also the coast of Washington, including Puget Sound and Skagit Valley.

b. *Sorex obscurus ventralis* Merriam.

Sorex obscurus ventralis Merr., N. Am. Faun., No. 10, 1895, p. 75.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 550, fig. LXXXI. Zool. Ser.

CHESTNUT-BELLIED SHREW.

Type locality. Cerro San Felipe, State of Oaxaca, Mexico. Altitude, 10,000 feet.

Geogr. Distr. State of Oaxaca, Mexico.

c. *Sorex obscurus elassodon* (Osgood).

Sorex longicauda elassodon Osgood, N. Am. Faun., No. 21, 1901,

p. 35.

QUEEN CHARLOTTE SHREW.

Type locality. Cumshewa Inlet, Moresby Island, Queen Charlotte Islands.

Geogr. Distr. Queen Charlotte Islands, British Columbia, Canada.

Genl. Char. Similar to *S. o. longicaudus*, but smaller and tail shorter.

Color. Like *S. o. longicaudus*, underparts paler.

Measurements. Total length, 123; tail vertebræ, 52; hind foot, 14.

d. *Sorex obscurus prevostensis* (Osgood).

Sorex longicauda prevostensis Osgood, N. Am. Faun., No. 21,

1901, p. 35.

PREVOST ISLAND SHREW.

Type locality. Prevost Island, Queen Charlotte Islands, British Columbia, Canada.

Geogr. Distr. Queen Charlotte Islands, British Columbia, Canada.

Genl. Char. Similar to *S. o. longicaudus*, tail shorter; teeth distinctive.

Color. Slightly darker than *S. o. longicaudus*.

Measurements. Total length, 133; tail vertebrae, 58; hind foot, 15.

1084. *Sorex oreopolus* Merriam.

Sorex oreopolus Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 173.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 550. Zoöl. Ser.

LOFTY MOUNTAIN SHREW.

Type locality. North slope of the Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 10,000 feet.

Geogr. Distr. State of Jalisco, Mexico.

1085. *Sorex glacialis* Merriam.

Sorex glacialis Merr., Proc. Wash. Acad. Scien., II, 1900, p. 16.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 372. Zoöl. Ser.

GLACIER BAY SHREW.

Type locality. Point Gustavus, east side of Glacier Bay, Alaska.

Geogr. Distr. Alaska. Range unknown.

a. *Sorex glacialis alascensis* (Merriam).

Sorex obscurus alascensis Merr., N. Am. Faun., No. 10, 1895, p. 76.

Sorex glacialis alascensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 372. Zoöl. Ser.

YAKUTAT BAY SHREW.

Type locality. Yakutat Bay, Alaska.

Geogr. Distr. Juneau to Yakutat, Alaska.

b. *Sorex glacialis shumaginensis* (Merriam).

Sorex alascensis shumaginensis Merr., Proc. Wash. Acad. Scien., II, 1900, p. 18.

Sorex glacialis shumaginensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 373. Zoöl. Ser.

POPOF ISLAND SHREW.

Type locality. Popof Island, Shumagin Group, Alaska.

Geogr. Distr. Shumagin Islands, Alaska.

1086. *Sorex bairdi* Merriam.

Sorex bairdi Merr., N. Am. Faun., No. 10, 1895, p. 77, pl. VII, figs. 3, 3a. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 373. Zoöl. Ser.

BAIRD'S SHREW.

Type locality. Astoria, mouth of the Columbia River, Clatsop County, Oregon.

Geogr. Distr. Coast of Oregon. Range unknown.

1087. *Sorex trowbridgii* Baird.

Sorex trowbridgii Baird, N. Am. Mamm., 1857, p. 13. Elliot, Syn.

N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 373. Zoöl. Ser.

TROWBRIDGE'S SHREW.

Type locality. Astoria, mouth of the Columbia River, Clatsop County, Oregon.

Geogr. Distr. Western Washington and Oregon, west of Cascade Range.

1088. *Sorex montereyensis* Merriam.

Sorex montereyensis Merr., N. Am. Faun., No. 10, 1895, p. 79.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 373, fig. 70. Zoöl. Ser.

MONTEREY SHREW.

Type locality. Monterey, Monterey County, California.

Geogr. Distr. Coast, and Sierra Nevada of California; south on coast to Morro and San Luis Obispo; south in the Sierra to Sequoia National Park and East Fork, Kaweah River.

1089. *Sorex californicus* Merriam.

Sorex californicus Merr., N. Am. Faun., No. 10, 1895, p. 80, pl. XII,

figs. 6, 7. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 374. Zoöl. Ser.

CALIFORNIA SHREW.

Type locality. Walnut Creek, Contra Costa County, California.

Geogr. Distr. California.

1090. *Sorex ornatus* Merriam.

Sorex ornatus Merr., N. Am. Faun., No. 10, 1895, p. 79, pl. VIII,

figs. 3, 3a. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 374. Zoöl. Ser.

ORNAMENTED SHREW.

Type locality. San Emigdio Cañon, Mount Pinos, Monterey County, California.

Geogr. Distr. Southern California from head of Ventura River and Mount Pinos, easterly to San Bernardino Peak, and south through the San Jacinto Range to Santa Isabel.

1091. *Sorex shastensis* Merriam.

Sorex shastensis Merr., N. Am. Faun., No. 16, 1899, p. 87. Elliot,

Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 374. Zoöl. Ser.

MOUNT SHASTA SHREW.

Type locality. Mount Shasta, Siskiyou County, California. Altitude, 5,700 feet.

Geogr. Distr. Known only from the type locality.

1092. *Sorex tenellus* Merriam.

Sorex tenellus Merr., N. Am. Faun., No. 10, 1895, p. 81, pl. XII, figs. 8, 9. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 374. Zool. Ser.

DELICATE SHREW.

Type locality. Alabama Hills, near Lone Pine, Owens Valley, Inyo County, California.

Geogr. Distr. Southeastern California.

a. *Sorex tenellus lyelli* Merriam.

Sorex tenellus lyelli Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 75.

MOUNT LYELL SHREW.

Type locality. Mount Lyell, Tuolumne County, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *S. tenellus*, but browner above; 3d unicuspid larger than 4th; unicuspid series heavier; 1st and 2d broader.

Measurements. Total length, 103; tail vertebræ, 41; hind foot, 12.

b. *Sorex tenellus myops* Merriam.

Sorex tenellus myops Merr., Proc. Biol. Soc. Wash., xv, 1902, p. 76.

WHITE MOUNTAINS SHREW.

Type locality. White Mountains, Mono County, California.

Geogr. Distr. Southeastern California.

Genl. Char. Like *S. tenellus*, but smaller; ears larger; color paler. Skull shorter and broader; rostrum broadened behind unicuspid; molars deeply excavated posteriorly.

Measurements. Total length, 98; tail vertebræ, 41; hind foot, 12.

c. *Sorex tenellus nanus* Merriam.

Sorex tenellus nanus Merr., N. Am. Faun., No. 10, 1895, p. 81, pl. VIII, figs. 5, 5a. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 375. Zool. Ser.

DWARF SHREW.

Type locality. Estes Park, Larimer County, Colorado.

Geogr. Distr. Colorado; Montana.

1093. *Sorex longirostris* Bachman.

Sorex longirostris Bachm., Jour. Acad. Nat. Scien. Phil., 1837, p. 370, pl. XXIII, fig. 2. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 375. Zool. Ser.

LONG-NOSED SHREW.

Type locality. Swamps of the Santee River, South Carolina.

Geogr. Distr. North and South Carolina; probably also Georgia and Florida.

1094. *Sorex fisheri* Merriam.

Sorex fisheri Merr., N. Am. Faun., No. 10, 1895, p. 86, pl. IV, fig. 4. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 375. Zoöl. Ser.

FISHER'S SHREW.

Type locality. Lake Drummond, Dismal Swamp, Norfolk County, Virginia.

Geogr. Distr. Virginia and North Carolina.

1095. *Sorex pacificus* Coues.

Sorex pacificus Coues. Bull. U. S. Geol. & Geog. Surv., III, 1877, p. 650. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 375. Zoöl. Ser.

PACIFIC SHREW.

Type locality. Fort Umpqua, mouth of Umpqua River, Douglas County, Oregon.

Geogr. Distr. Pacific coast from Point Reyes, Marin County, California, to Yaquina Bay, Oregon.

1096. *Sorex pribilofensis* Merriam.

Sorex pribilofensis Merr., N. Am. Faun., No. 10, 1895, p. 87, pl. IX, figs. 3, 3a. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 376. Zoöl. Ser.

ST. PAUL ISLAND SHREW.

Type locality. St. Paul Island, Pribilof Islands, Bering Sea, Alaska.

Geogr. Distr. Pribilof Islands, Bering Sea, Alaska.

1097. *Sorex merriami* Dobson.

Sorex merriami Dobson, Mon. Insect., fasc. 1. Pt. III, 1890, pl. XXIII, fig. 6. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 376. Zoöl. Ser.

MERRIAM'S SHREW.

Type locality. Little Big Horn River, near Fort Custer, Crow Indian Reservation, Montana.

Geogr. Distr. Known only from the type locality.

a. *Sorex merriami miscix* (Bangs).

Sorex personatus miscix Bangs, N. Engl. Zoöl. Club, 1, 1899, p. 15.

Sorex merriami miscix Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 376. Zoöl. Ser.

LABRADOR SHREW.

Type locality. Black Bay, Strait of Belle Isle, Labrador.

Geogr. Distr. Labrador. Range unknown.

1098. *Sorex salvini* Merriam.

Sorex salvini Merr., Proc. Biol. Soc. Wash., xi, 1897, p. 229.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,

Pt. II, 1904, p. 551. Zoöl. Ser.

SALVIN'S SHREW.

Type locality. Cael, Totonicapan, Guatemala. Altitude, 10,200 feet.

Geogr. Distr. Guatemala. Range unknown.

1099. *Sorex stizodon* Merriam.

Sorex stizodon Merr., N. Am. Faun., No. 10, 1895, p. 98. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II,

1904, p. 551. Zoöl. Ser.

SAN CRISTOBAL SHREW.

Type locality. San Cristobal, State of Chiapas, Mexico.

Geogr. Distr. State of Chiapas, Mexico. Range unknown.

1100. *Sorex verapacis* Alston.

Sorex verapacis Alston, Proc. Zoöl. Soc., 1877, p. 445. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II,

1904, p. 551. Zoöl. Ser.

GUATEMALAN SHREW.

Type locality. Coban, Guatemala.

Geogr. Distr. Guatemala, Central America.

1101. *Sorex macrodon* Merriam.

Sorex macrodon Merr., N. Am. Faun., No. 10, 1895, p. 82. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II,

1904, p. 552. Zoöl. Ser.

LARGE-TOOTHED SHREW.

Type locality. Orizaba, State of Vera Cruz, Mexico. Altitude, 4,200 feet.

Geogr. Distr. State of Vera Cruz, Mexico.

1102. *Sorex godmani* Merriam.

Sorex godmani Merr., Proc. Biol. Soc., Wash., xi, 1897, p. 229.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,

Pt. II, 1904, p. 552. Zoöl. Ser.

GODMAN'S SHREW.

Type locality. Volcano Santa Maria, Quezaltenango, Guatemala. Altitude, 9,000 feet.

Geogr. Distr. Guatemala, Central America. Range unknown.

1103. *Sorex sclateri* Merriam.

Sorex sclateri Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 228.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 552. Zoöl. Ser.

SCLATER'S SHREW.

Type locality. Tumbala, State of Chiapas, Mexico. Altitude, 5,000 feet.

Geogr. Distr. State of Chiapas, Mexico.

1104. *Sorex saussurii* Merriam.

Sorex saussurei Merr., Proc. Biol. Soc. Wash., VII, 1892, p. 173.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 553. Zoöl. Ser.

SAUSSURE'S SHREW.

Type locality. North slope of the Sierra Nevada de Colima, State of Jalisco, Mexico. Altitude, 8,000 feet.

Geogr. Distr. State of Jalisco, Mexico.

a. *Sorex saussurii mutabilis* Merriam.

Sorex caudatus Merr., N. Am. Faun., No. 10, 1895, p. 84. (nec Hodgson, 1851.)

Sorex saussurei mutabilis Merr., Science, N. S., VIII, 1898, p. 782.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 553. Zoöl. Ser.

CHANGEABLE SHREW.

Type locality. Reyes, State of Oaxaca, Mexico. Altitude, 10,200 feet.

Geogr. Distr. From State of Vera Cruz to State of Oaxaca, Mexico.

1105. *Sorex orinus* Elliot.

Sorex orinus Elliot, Pub. Field Columb. Mus., III, 1903, p. 172.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 553, fig. 102. Zoöl. Ser.

MOUNTAIN SHREW.

Type locality. Aguaje de las Fresas, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 6,000 feet.

Geogr. Distr. Known only from the type locality.

Genus 144. *Microsorex*. Small Shrews.

Microsorex Coues, Notes on Am. Insectiv. Mamm., Bull. U. S. Geol. and Geogr. Surv., III, 1877, No. 3, p. 646. Type *Sorex hoyi* Baird.

1106. *Microsorex hoyi* (Baird).

Sorex hoyi Baird, N. Am. Mamm., 1857, p. 32, pl. xxviii.

Sorex thompsoni Baird, N. Am. Mamm., 1857, p. 34.

Microsorex hoyi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 377, fig. 71. Zoöl. Ser.

HOY'S SHREW.

Type locality. Racine, Racine County, Wisconsin.

Geogr. Distr. Labrador to British Columbia; northern Minnesota and North Dakota.

1107. *Microsorex eximius* (Preble).

Sorex eximius Preble, N. Am. Faun., No. 21, 1901, p. 71.

EXTRAORDINARY SHREW.

Type locality. Tyonek, Cook Inlet, Alaska.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *M. hoyi*, but larger and paler. Rostrum narrow, elongate; braincase high, compressed anteriorly, elevated above plane of rostrum; palate long, narrow, excavated; fourth unicuspid small; first upper incisor, long, slightly decurved.

Color. Head, back, and sides uniform pearly sepia; under parts pale drab; tail bicolor.

Measurements. Total length, 98; tail vertebræ, 31; hind foot, 11. Skull: basal length, 15; palatal length, 6.5; mastoid width, 7.1; antorbital breadth, 4.3.

1108. *Microsorex alnorum* (Preble).

Sorex alnorum Preble, N. Am. Faun., No. 22, 1902, p. 72.

KEEWATIN SHREW.

Type locality. Robinson's Portage, Keewatin, Canada.

Geogr. Distr. Keewatin, Canada.

Genl. Char. Larger than *M. hoyi*. Skull larger.

Color. Upper parts sepia brown; beneath ashy gray; hind foot dusky above, whitish below, and dusky toward tip.

Measurements. Total length, 98; tail vertebræ, 35; hind foot, 12. Skull: greatest length, 16.5; width of braincase, 7; length of mandible, 10.

Genus 145. *Neosorex*. Swimming Shrews.

Neosorex Baird, N. Am. Mamm., 1857, p. 11. Type *Neosorex navigator* Baird.

1109. *Neosorex palustris* (Richardson).

Sorex palustris Rich., Zoöl. Journ., 111, 1828, p. 517.

Neosorex palustris Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 378, fig. 72. Zoöl. Ser.

MARSH SHREW.

Type locality. Marshy places from Hudson Bay to the Rocky Mountains.

Geogr. Distr. Central Minnesota to east base of the Rocky Mountains.

a. *Neosorex palustris navigator* (Baird).

Neosorex navigator Baird, N. Am. Mamm., 1857, p. 11.

Sorex palustris Merr., N. Am. Faun., No. 5, 1891, p. 35. (nec Richardson.)

Neosorex palustris navigator Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 379. Zool. Ser.

NAVIGATOR SHREW.

Type locality. Northern Idaho?

Geogr. Distr. Rocky Mountains from British Columbia to southern Colorado; Sierra Nevada of California to Sequoia National Park.

b. *Neosorex palustris alaskanus* (Merriam).

Sorex navigator alaskanus Merr., Proc. Wash. Acad. Scien., 11, 1900, p. 18.

Neosorex palustris alaskanus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 379. Zool. Ser.

ALASKA SWIMMING SHREW.

Type locality. Point Gustavus, east side of Glacier Bay, Alaska.

Geogr. Distr. Alaska. Range unknown.

1110. *Neosorex albibarbis* Cope.

Neosorex albibarbis Cope, Proc. Acad. Nat. Scien. Phil., 1862, p. 188.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 379. Zool. Ser.

WHITE-LIPPED SWIMMING SHREW.

Type locality. Profile Lake, Franconia Mountains, Grafton County, New Hampshire.

Geogr. Distr. Pennsylvania northward to Labrador.

1111. *Neosorex hydrodromus* (Dobson).

Sorex hydrodromus Dobson, Ann. Mag. Nat. Hist., 6th Ser., iv, 1889, p. 373.

Neosorex hydrodromus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 379. Zool. Ser.

DOBSON'S SWIMMING SHREW.

Type locality. Unalaska Island, Alaska.

Geogr. Distr. Aleutian Islands, Alaska. Range unknown.

Genus 146. **Atophyrax. Anomalous Shrews.**

Atophyrax Merr., Trans. Linn. Soc. N. Y., 11, 1884, p. 217. Type
Atophyrax bendirii Merriam.

1112. Atophyrax bendirii Merriam.

Atophyrax bendirii Merr., Trans. Linn. Soc. N. Y., 11, 1884, p. 217.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 381,
fig. 73. Zoöl. Ser. *Id.* Pub. Field Columb. Mus., 111, 1903,
p. 195. Zoöl. Ser.

Sorex bendirii palmeri Merr., N. Am. Faun., No. 10, 1895, p. 97.

Atophyrax bendirii palmeri Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., 11, 1901, p. 381. Zoöl. Ser.

BENDIRE'S SHREW.

Type locality. Near Williamson River, eighteen miles southwest
of Fort Klamath, Klamath County, Oregon.

Geogr. Distr. From Sonoma County, California, and from east
side of Cascade Range to the Pacific Ocean; north to Puget Sound,
Washington.

a. Atophyrax bendirii albiventer (Merriam).

Sorex bendirii albiventer Merr., N. Am. Faun., No. 10, 1895, p. 97.

Atophyrax bendirii albiventer Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., 11, 1901, p. 381. Zoöl. Ser.

WHITE-BELLIED SHREW.

Type locality. Lake Cushman, Olympic Mountains, Mason
County, Washington.

Geogr. Distr. Olympic Mountains, Washington.

Genus 147. **Notiosorex. Southern Shrews.**

Notiosorex Coues, Notes Insectiv. Mamm., Bull. U. S. Geol. & Geogr.
Surv. Terr., 111, 1877, p. 646. Type *Sorex crawfordi* Coues.

1113. Notiosorex crawfordi (Coues).

Sorex crawfordi Coues, Bull. U. S. Geol. & Geogr. Surv. Terr., 111,
1877, p. 651.

Notiosorex crawfordi Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 385, fig. 76. Zoöl. Ser. *Id.* Mamm. Middle Amer.
& W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 554. Zoöl. Ser.

CRAWFORD'S SHREW.

Type locality. Near Old Fort Bliss, two miles above El Paso,
El Paso County, Texas.

Geogr. Distr. Eastern Texas to southern California, and on northern boundary line of Mexico at Monument 66.

a. Notiosorex crawfordi evotis (Coues).

Sorex evotis Coues, Bull. U. S. Geol. & Geogr. Surv. Terr., III, 1877, p. 652.

Notiosorex crawfordi evotis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 555. Zoöl. Ser.

MAZATLAN SHREW.

Type locality. Mazatlan, State of Sinaloa, Mexico.

Geogr. Distr. State of Sinaloa, Mexico. Range unknown.

1114. Notiosorex gigas Merriam.

Notiosorex gigas Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 227.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 555, fig. 103. Zoöl. Ser.

GIANT SHREW.

Type locality. Mountains of Milpillas near San Sebastian, State of Jalisco, Mexico.

Geogr. Distr. Mountains of Milpillas, State of Jalisco, Mexico. Range unknown.

Genus 148. **Blarina. Short-tailed Shrews.**

Blarina Gray, Proc. Zoöl. Soc., 1837, p. 124. Type *Sorex talpoides* Gapper = *Sorex brevicaudus* Say.

Brachysorex Duvern., Mag. Zool., 2me Sér., IV, 1842, p. 37, pl. 52.

Blaria Gray, List Spec. Mamm. Brit. Mus., 1843, p. XXI.

Talposorex! Pomel, Archiv. Scien. Phys. & Nat. Bibl. Univ. Genève, IX, 1848, p. 248. (nec Schinz, 1821.)

Cryptotis Pomel, Archiv. Scien. Phys. & Nat. Bibl. Univ. Genève, IX, 1848, p. 249.

Galemys Pomel, Archiv. Scien. Phys. & Nat. Bibl. Univ. Genève, IX, 1848, p. 249. (nec Kaup.)

Anotus Wagn., Schreb. Säugth., Suppl., 1855, p. 550. (nec Rafin., 1815.)

Soriciscus Coues, Bull. U. S. Geol. & Geogr. Surv. Terr., 1877, p. 649.

Subgenus A. **Blarina.**

1115. Blarina brevicauda (Say).

Sorex brevicaudus Say, Long's Exped. Rocky Mts., I, 1823, p. 164.

Sorex talpoides Gapper, Zoöl. Journ., V, 1830, p. 202, pl. VIII.

Sorex dekayi Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 377.

Galemys (Brachysorex) micrurus Pomel, Archiv. Scien. Phys. & Nat. Bibl. Univ. Genève, ix, 1848, p. 249.

Sorex angusticeps Baird, N. Am. Mamm., 1857, p. 47.

Blarina costaricensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 205. (Not from Costa Rica.)

Blarina brevicauda Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 382, fig. 74. Zoöl. Ser.

Blarina brevicauda talpoides Bangs, Proc. N. Engl. Zoöl. Club, III, 1902, p. 75.

SHORT-TAILED SHREW.

Type locality. Near Blair, Missouri River, Washington County, Nebraska.

Geogr. Distr. Atlantic coast west to Manitoba, Canada, and Nebraska.

a. *Blarina brevicauda carolinensis* (Bachman).

Sorex carolinensis Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 366.

Blarina brevicauda carolinensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 383. Zoöl. Ser.

CAROLINA SHREW.

Type locality. Eastern South Carolina.

Geogr. Distr. Chesapeake Bay, Maryland, to Arkansas.

b. *Blarina brevicauda *hylophaga* Elliot.

Blarina brevicauda hulo-phaga Elliot, Pub. Field Columb. Mus., I, 1899, p. 287. Zoöl. Ser. *Id.* Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 383. Zoöl. Ser.

WOOD SHREW.

Type locality. Dougherty, Washita River, Chickasaw Nation, Indian Territory.

Geogr. Distr. Known only from the type locality.

c. *Blarina brevicauda peninsulæ* (Merriam).

Blarina carolinensis peninsulæ Merr., N. Am. Faun., No. 10, 1895, p. 14.

Blarina brevicauda peninsulæ Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 383. Zoöl. Ser.

PENINSULA SHREW.

Type locality. Miami River, Dade County, Florida.

Geogr. Distr. Peninsula of Florida, south of latitude 28°.

*Misprinted originally *hulo-phaga*.

d. Blarina brevicauda aloga Bangs.

Blarina brevicauda aloga Bangs, Proc. N. Engl. Zoöl. Club, III, 1902, p. 76.

IRRATIONAL SHREW.

Type locality. West Tisbury, Martha's Vineyard, Massachusetts.

Geogr. Distr. Known only from the type locality.

Genl. Char. Rostrum very short, massive, and wide; nasal aperture wide.

Color. Above dark brownish drab; beneath silvery gray; hands and feet white; tail above dusky, beneath gray.

Measurements. Total length, adult males, 115-128; tail vertebræ, 24-29; hind foot, 14-15. Skull: greatest length, 22; basal length, 19.6; interorbital breadth, 6; length of tooth row, 10; length of single half of mandible, 12.2.

e. Blarina brevicauda compacta Bangs.

Blarina brevicauda compacta Bangs, Proc. N. Engl. Zoöl. Club, III, 1902, p. 77.

THICK-SET SHREW.

Type locality. Nantucket, Nantucket Island, Massachusetts.

Geogr. Distr. Nantucket Island, Massachusetts.

Genl. Char. Like *B. b. aloga* in size; color different.

Color. Above and beneath slate gray shaded with drab; hands and feet grayish; tail dusky, unicolor.

Measurements. Total length, adult males, 119-125; tail vertebræ, 23-25; hind foot, 14.5-15. Skull: greatest length, 22.4; basal length, 19.8; interorbital breadth, 6; length of tooth row, 10; length of single half of mandible, 12.2.

f. Blarina brevicauda berlandieri (Baird).

Blarina berlandieri Baird, N. Am. Mamm., 1857, p. 20.

Blarina brevicauda berlandieri Elliot, Mamm. Middle Amer. & W.

Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 558. Zoöl. Ser.

BERLANDIER'S SHREW.

Type locality. Matamoros, State of Tamaulipas, Mexico.

Geogr. Distr. Range unknown. State of Tamaulipas, Mexico, possibly north into Texas.

1116. *Blarina telmalestes* Merriam.

Blarina telmalestes Merr., N. Am. Faun., No. 10, 1895, p. 15,

pl. 11, fig. 5. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II,

1901, p. 384. Zoöl. Ser.

DISMAL SWAMP SHREW.

Type locality. Lake Drummond, Dismal Swamp, Norfolk County, Virginia.

Geogr. Distr. Dismal Swamp, Virginia.

Subgenus B. *Cryptotis*.1117. *Blarina parva* (Say).

Sorex parvus Say, Long's Exped. Rocky Mts., I, 1823, p. 163.

Sorex cinereus Bachm., Journ. Acad. Nat. Scien. Phil., 1837, p. 373, pl. xxiii, fig. 3.

Blarina exilipes Baird, N. Am. Mamm., 1857, p. 51.

Blarina eximius Baird, N. Am. Mamm., 1857, p. 52.

Blarina parva Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 384, fig. 75. Zoöl. Ser.

SMALL SHREW.

Type locality. Near Blair, Missouri River, Washington County, Nebraska.

Geogr. Distr. Atlantic coast west to eastern Nebraska and Texas.

1118. *Blarina floridana* Merriam.

Blarina floridana Merr., N. Am. Faun., No. 10, 1895, p. 19, pl. 1, fig. 7. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 385. Zoöl. Ser.

FLORIDA SHREW.

Type locality. Chester Shoal, eleven miles north of Cape Canaveral, Brevard County, Florida.

Geogr. Distr. Peninsula of Florida, south of latitude 29°.

1119. *Blarina pergracilis* Elliot.

Blarina pergracilis Elliot, Pub. Field Columb. Mus., III, 1903, p. 149. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 557, figs. 104, LXXXII. Zoöl. Ser.

OCOTLAN SLENDER SHREW.

Type locality. Ocotlan, State of Jalisco, Mexico.

Geogr. Distr. Known only from the type locality.

1120. *Blarina nigrescens* Allen.

Blarina nigrescens Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 339. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 558. Zoöl. Ser.

BLACKISH SHREW.

Type locality. San Isidro (San José), Costa Rica.

Geogr. Distr. Known only from the type locality.

1121. *Blarina tropicalis* Merriam.

Blarina tropicalis Merr., N. Am. Faun., No. 10, 1895, p. 21.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 359. Zoöl. Ser.

TROPICAL SHREW.

Type locality. Coban, Guatemala. Altitude, 4,400 feet.

Geogr. Distr. States of Vera Cruz and Oaxaca, Mexico, into Guatemala.

1122. *Blarina soricina* Merriam.

Blarina soricina Merr., N. Am. Faun., No. 10, 1895, p. 22. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 560. Zoöl. Ser.

TALPAM SHREW.

Type locality. Talpam, Valley of Mexico, ten miles south of Mexico City. Altitude, 7,600 feet.

Geogr. Distr. State of Mexico. Range unknown.

1123. *Blarina oreophila* Allen.

Blarina oreophila Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1895, p. 340.

Blarina oreophila Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 559. Zoöl. Ser.

VOLCANO OF IRAZÚ SHREW.

Type locality. Volcan de Irazú, Costa Rica, Central America.

Geogr. Distr. Known only from the type locality.

1124. *Blarina obscura* Merriam.

Blarina obscura Merr., N. Am. Faun., No. 10, 1895, p. 23. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 559. Zoöl. Ser.

DUSKY SHREW.

Type locality. Tulancingo, State of Hidalgo, Mexico. Altitude, 8,500 feet.

Geogr. Distr. State of Hidalgo, Mexico. Range unknown.

1125. *Blarina mexicana* Coues.

Blarina mexicana Coues, Bull. U. S. Geol. & Geogr. Surv. Terr., III, 1877, p. 652. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 560. Zoöl. Ser.

COUES' MEXICAN SHREW.

Type locality. Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. States of Vera Cruz and Oaxaca.

a. Blarina mexicana goldmani Merriam.

Blarina mexicana goldmani Merr., N. Am. Faun., No. 10, 1895,
p. 25. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 560. Zool. Ser.

GOLDMAN'S SHREW.

Type locality. Mountains near Chilpancingo, State of Guerrero,
Mexico. Altitude, 10,000 feet.

Geogr. Distr. State of Guerrero, Mexico. Range unknown.

b. Blarina mexicana peregrina Merriam.

Blarina mexicana peregrina Merr., N. Am. Faun., No. 10, 1895,
p. 24. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 560. Zool. Ser.

WANDERING SHREW.

Type locality. Mountains fifteen miles west of Oaxaca, State of
Oaxaca, Mexico. Altitude, 9,500 feet.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

c. Blarina mexicana machetes Merriam.

Blarina mexicana machetes Merr., N. Am. Faun., No. 10, 1895,
p. 26. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 561. Zool. Ser.

WARRING SHREW.

Type locality. Mountains near Ozolotepec, State of Oaxaca,
Mexico. Altitude, 10,000 feet.

Geogr. Distr. State of Oaxaca, Mexico. Range unknown.

1126. *Blarina mayensis* Merriam.

Blarina mayensis Merr., Proc. Wash. Acad. Scien., III, 1901, p. 559.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. II, 1904, p. 561. Zool. Ser.

MAYA SHREW.

Type locality. Maya ruin, Chichen Itza, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico. Range unknown.

1127. *Blarina nelsoni* Merriam.

Blarina nelsoni Merr., N. Am. Faun., No. 10, 1895, p. 26. Elliot,
Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II,
1904, p. 561. Zool. Ser.

NELSON'S SHREW.

Type locality. Volcano of Tuxtla, State of Vera Cruz, Mexico.
Altitude, 4,800 feet.

Geogr. Distr. State of Vera Cruz, Mexico.

1128. *Blarina alticola* Merriam.

Blarina alticola Merr., N. Am. Faun., No. 10, 1895, p. 27.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 561. Zoöl. Ser.

MT. POPOCATEPETL SHREW.

Type locality. Mt. Popocatepetl, State of Mexico. Altitude, 11,500 feet.

Geogr. Distr. State of Mexico, Mexico.

1129. *Blarina fossor* Merriam.

Blarina fossor Merr., N. Am. Faun., No. 10, 1895, p. 28. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 562. Zoöl. Ser.

MT. ZEMPOALTEPEC SHREW.

Type locality. Mt. Zempoaltepec, State of Oaxaca, Mexico. Altitude, 10,500 feet.

Geogr. Distr. Mt. Zempoaltepec, 8,200-10,500 feet altitude, State of Oaxaca, Mexico.

1130. *Blarina magna* Merriam.

Blarina magna Merr., N. Am. Faun., No. 10, 1895, p. 28. Elliot,

Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 562. Zoöl. Ser.

GREAT SHREW.

Type locality. Totontepec, State of Oaxaca, Mexico. Altitude, 6,800 feet.

Geogr. Distr. Mountains around Totontepec and Zempoaltepec, State of Oaxaca, Mexico. Altitude, 6,800-8,000 feet.

Family II. Talpidae. Moles.**Subfamily I. Myogalinæ.****Genus 149. *Neurotrichus*. Shrew-like Moles.**

Neurotrichus Günther, Proc. Zoöl. Soc., 1880, p. 441. *Type Urotrichus gibbsii* Baird.

1131. *Neurotrichus gibbsii* (Baird).

Urotrichus gibbsii Baird, N. Am. Mamm., 1857, p. 76.

Neurotrichus gibbsii Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 387, fig. 77. Zoöl. Ser.

GIBBS' SHREW MOLE.

Type locality. White River Pass, Cascade Mountains, Pierce County, Washington.

Geogr. Distr. Fraser River Region, British Columbia, west of Cascade and Sierra Nevada Mountains to Shasta County, and thence along the coast of San Francisco Bay, California.

a. Neurotrichus gibbsi major Merriam.

Neurotrichus gibbsi major Merr., N. Am. Faun., No. 16, 1899,
p. 88. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 387. Zoöl. Ser.

LARGE SHREW MOLE.

Type locality. Carberry Ranch, Shasta County, California.

Geogr. Distr. Canadian zone, Shasta County, California.

b. Neurotrichus gibbsi hyacinthinus Bangs.

Neurotrichus gibbsi hyacinthinus Bangs, Amer. Nat., xxxi, 1897,
p. 240. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 388. Zoöl. Ser.

HYACINTHINE SHREW MOLE.

Type locality. Nicasio, Marin County, California.

Geogr. Distr. California. Range unknown.

Subfamily II. **Talpinæ.**

Genus 150. **Condylura. Star-nosed Moles.**

Condylura Illig., Prodr. Syst. Mamm. et Av., 1811, p. 125. Type

Sorex cristatus Linnæus.

Rhinaster Wagl., Nat. Syst. Amphib., 1830, p. 14.

Astromyctes Gray, List Mamm. Brit. Mus., 1843, pp. xxi, 76.

(*nomen nudum*.)

Astromydes Blyth, Cat. Mamm. Asiat. Soc. Mus., 1863, p. 87.

1132. Condylura cristata (Linnæus).

Sorex cristatus Linn., Syst. Nat., 1, 1758, p. 53.

Talpa longicaudata Erxl., Syst. Reg. Anim., 1, 1777, p. 118.

Talpa radiata Shaw, Gen. Zoöl., Mamm., 1, 1800, p. 523.

Condylura macroura Harl., Faun. Amer., 1825, p. 36.

Condylura prasinata Harris, Bost. Journ. Phil. & Arts, 1825, p. 582.

Condylura cristata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 395, fig. 81. Zoöl. Ser.

STAR-NOSED MOLE.

Type locality. Pennsylvania.

Geogr. Distr. Hudson Bay to Manitoba, south to Minnesota on the west, and on the Atlantic coast to South Carolina in the Alleghanies.

Genus 151. **Scapanus. Western Moles.**

Scapanus Pomel, Archiv. Scien. Phys. Nat. Bibl. Univ. Genève, 4th Ser., IX, 1848, p. 247. Type by elimination, *Scalops townsendii* Bachman.

1133. Scapanus townsendi (Bachman).

Scalops canadensis Rich., Faun. Bor. Am., I, 1829, p. 9. (nec Desmarest, nec Harlan.)

Scalops townsendii Bach., Journ. Acad. Nat. Scien. Phil., 1839, p. 58.

Scalops latimanus Bach., Bost. Journ. Nat. Hist., 1843, p. 41.

Scalops metallescens Cass., Proc. Acad. Nat. Scien. Phil., 1853, p. 242.

Scalops æneus Cass., Proc. Acad. Nat. Scien. Phil., 1853, p. 299.

Talpa tæniata Le Conte, Proc. Acad. Nat. Scien. Phil., 1853, p. 327.

Scapanus townsendi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 391, fig. 79. Zoöl. Ser.

TOWNSEND'S MOLE.

Type locality. Vicinity of Vancouver, Clarke County, Washington.

Geogr. Distr. Coast line of Oregon and Washington, and north-western California to Crescent City.

1134. Scapanus orarius True.

Scapanus orarius True, Proc. U. S. Nat. Mus., XIX, 1896, p. 52.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 392. Zoöl. Ser.

COAST MOLE.

Type locality. Shoalwater Bay, Pacific County, Washington.

Geogr. Distr. Sea coast of Washington and Oregon from Coquilla River northward, and shores of Puget Sound to Sumas, British Columbia; Fort Walla Walla, Walla Walla County, Washington.

1135. Scapanus californicus (Ayres).

Scalops californicus Ayres, Proc. Calif. Acad. Nat. Scien., I, 1855, p. 54.

Scapanus dilatatus True, Proc. U. S. Nat. Mus., 1894, p. 242.

Scapanus californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 392. Zoöl. Ser.

CALIFORNIA MOLE.

Type locality. San Francisco, California.

Geogr. Distr. California west of the Coast Range and Sierra Nevada; Fort Klamath, Klamath County, Oregon.

a. Scapanus californicus minusculus Bangs.

Scapanus californicus minusculus Bangs, Proc. N. Engl. Zool. Club, 1, 1899, p. 70. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, Append., p. 435. Zool. Ser.

SMALLER CALIFORNIA MOLE.

Type locality. Fyffe, El Dorado County, California.

Geogr. Distr. California. Range unknown.

1136. *Scapanus alpinus* Merriam.

Scapanus alpinus Merr., Proc. Biol. Soc. Wash., 11, 1897, p. 102.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 393. Zool. Ser.

ALPINE MOLE.

Type locality. Crater Lake, Mount Mazama, Klamath County, Oregon. Altitude, 7,000 feet.

Geogr. Distr. Oregon. Range unknown.

1137. *Scapanus truei* Merriam.

Scapanus truei Merr., Proc. Biol. Soc. Wash., 11, 1897, p. 102.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 393. Zool. Ser.

TRUE'S MOLE.

Type locality. Lake City, Modoc County, California.

Geogr. Distr. California. Range unknown.

1138. *Scapanus anthonyi* Allen.

Scapanus anthonyi Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1893, p. 200. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,

p. 393. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 564, figs. 105, LXXXIII. Zool. Ser.

LOWER CALIFORNIA MOLE.

Type locality. San Pedro Martir Mountains, Lower California, Mexico. Altitude, 7,000 feet.

Geogr. Distr. Known only from the type locality.

Genus 152. **Scalopus. Common Moles.**

Scalopus Geoffroy, Cat. Mamm. Mus. Hist. Nat. Paris, 1803, pp. 77-78.

Type Scalopus virginianus Geoffroy = *Sorex aquaticus* Linnæus.

Scalops Illig., Prodr. Syst. Mamm. et Avium, 1811, p. 126.

1139. *Scalopus aquaticus* (Linnæus).

Sorex aquaticus Linn., Syst. Nat., 1, 1758, p. 53.

Talpa europæa flavescens Erxl., Syst. Reg. Anim., 1777, p. 118.

Talpa europæa flava Gmel., Syst. Nat., 1, 1788, p. 112.

Talpa flava Kerr, Anim. Kingd., 1792, p. 201.

Talpa fusca Kerr, Anim. Kingd., 1792, p. 202.

Talpa cupreata Rafin., Préc. découv. trav. somiol. Palerme, 1814
p. 14.

Scalops canadensis Desm., Mamm., 1820, p. 155.

Scalops pennsylvanica Harl., Faun. Amer., 1825, p. 33.

Talpa pennantii Le Conte, Proc. Acad. Nat. Scien. Phil., 1853, p. 327.

Scalops aquaticus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 389, fig. 78. Zoöl. Ser.

COMMON MOLE.

Type locality. Eastern United States.

Geogr. Distr. Massachusetts to Florida, west to the Mississippi.

a. *Scalopus aquaticus machrinus* (Rafinesque).

Talpa machrina Rafin., Atlantic Journ., 1, 1832, p. 61.

Talpa sericea Rafin., Atl. Jour., 1832, p. 61.

Scalops argentatus Aud. & Bachm., Journ. Acad. Nat. Scien. Phil.,
1842, p. 292.

Scalops aquaticus machrinus Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., 11, 1901, p. 389. Zoöl. Ser.

LARGE-NOSED MOLE.

Type locality. Near Lexington, Fayette County, Kentucky.

Geogr. Distr. Wisconsin and Minnesota to Tennessee and Mis-
souri; west to eastern Kansas, Nebraska, and southwestern South
Dakota.

b. *Scalopus aquaticus intermedius* (Elliot).

Scalops machrinus intermedius Elliot, Pub. Field Columb. Mus.,
1, 1899, p. 280. Zoöl. Ser.

Scalops aquaticus intermedius Elliot, Syn. N. Am. Mamm., F. C. M.
Pub., 11, 1901, p. 390. Zoöl. Ser.

INTERMEDIATE MOLE.

Type locality. Alva, Woods County, Oklahoma Territory.

Geogr. Distr. Oklahoma and Indian Territories.

c. *Scalopus aquaticus australis* (Chapman).

Scalops aquaticus australis Chapman, Bull. Am. Mus. Nat. Hist.
N. Y., 1893, p. 339. Elliot, Pub. Field Columb. Mus., 111,
1901, p. 56. Zoöl. Ser.

Scalops parvus Rhoads, Proc. Acad. Nat. Scien. Phil., 1894, p. 157.

Scalops anastasiæ Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 212.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 391.
Zoöl. Ser.

Scalops aquaticus parvus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 390. Zoöl. Ser.

FLORIDA MOLE.

Type locality. Gainesville, Alachua County, Florida.

Geogr. Distr. East Florida, south to Lake Worth.

d. *Scalopus aquaticus texensis* (Allen).

Scalops argentatus texanus! Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 221.

Scalops aquaticus texensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 390. Zoöl. Ser.

TEXAS MOLE.

Type locality. Texas (Aransas County?).

Geogr. Distr. Coast of Texas.

1140. **Scalopus aereus* (Bangs).

Scalops texanus! aereus Bangs, Proc. Biol. Soc. Wash., x, 1896, p. 138.

Scalops aereus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 390. Zoöl. Ser.

COPPER-COLORED MOLE.

Type locality. Stilwell, Boston Mountains, Indian Territory.

Geogr. Distr. Known only from the type locality.

Genus 153. **Parascalops. Hairy-tailed Moles.**

Parascalops True, Proc. U. S. Nat. Mus., xvii, 1894, p. 242. Type *Scalops breweri* Bachman.

1141. **Parascalops breweri** (Bachman).

Scalops breweri Bachm., Bost. Journ. Nat. Hist., 1841, p. 32.

Parascalops breweri Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 394, fig. 80. Zoöl. Ser.

BREWER'S HAIRY-TAILED MOLE.

Type locality. Martha's Vineyard, Massachusetts?

Geogr. Distr. Atlantic coast from New Brunswick to North Carolina, West Virginia, and southeastern Ohio. Shores of Lakes Erie and Ontario, and banks of the St. Lawrence to Quebec, possibly to the Atlantic.

* Doubtfully distinct from *S. a. texensis*.

Family III. **Solenodontidæ.**Genus 154. **Solenodon. Almiqui and Agouta.****Solenodon** Brandt, Mém. Acad. Imp. Scien. St. Pétersb., 6th Ser., II, 1833, p. 459. Type *Solenodon paradoxus* Brandt.**1142. Solenodon cubanus** Peters.*Solenodon cubanus* Peters, Abh. K. Preuss. Akad. Wiss. Berl., 1863, p. 2, pl. III. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 567, figs. 106, LXXXIV. Zool. Ser.**ALMIQUI.***Type locality.* Island of Cuba.*Geogr. Distr.* Island of Cuba. West Indies.**1143. Solenodon paradoxus** Brandt.*Solenodon paradoxus* Brandt, Mém. Acad. Imp. Scien. St. Pétersb., 6th Ser., II, 1833, p. 459, pls. 1, 2. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 568. Zool. Ser.**AGOUTA.***Type locality.* Island of Haiti.*Geogr. Distr.* Island of Haiti.

Order X. **Chiroptera. Bats.**

Family I. **Vespertilionidae. Common Bats.**

Subfamily I. **Vespertilioninae.**

Genus 155. **Myotis.**

Myotis Kaup, Skizzirte Entw.-Gesch. u. Natürl. Syst. Europ. Thierw., I, 1829, p. 106. Type *Vespertilio murinus* Schreber = *Vespertilio myotis* Bechstein.

Nystactes Kaup, Skizzirte Entw.-Gesch. u. Natürl. Syst. Europ. Thierw., I, 1829, pp. 106, 108-109.

Vespertilio Keyserl. & Blas., Wieg. Archiv f. Naturg., 1839, p. 306. (nec Linn.)

Selysius Bonap., Iconog. Faun. Italy, I, 1841, Intr. p. 3.

Brachyotus Kolen., Allgem. Deutsch. Naturh. Zeit. Dresden, neue Folge, II, 1856, pp. 131, 174-177.

Isotus Kolen., Allgem. Deutsch. Naturh. Zeit. Dresden, neue Folge, II, 1856, pp. 131, 177-179.

Aeorestes Fitzing., Sitzungs. Math.-Nat. Cl. K. Akad. Wiss. Wien, LXII, 1870, abth. I, p. 427.

Comastes Fitzing., Sitzungs. Math.-Nat. Cl. K. Akad. Wiss. Wien, LXII, 1870, abth. I, p. 565.

1144. Myotis velifer (J. A. Allen).

Vespertilio velifer J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 177.

Myotis velifer Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 401. Zool. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 573. Zool. Ser.

LARGE-WINGED BAT.

Type locality. Santa Cruz del Valle, near Guadalajara, State of Jalisco, Mexico.

Geogr. Distr. From the State of Mexico north throughout Mexico to Missouri.

1145. Myotis incautus (J. A. Allen).

Vespertilio incautus J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1896, p. 239.

HEEDLESS BAT.

Type locality. San Antonio, Bexar County, Texas.

Geogr. Distr. Texas. Range unknown.

Genl. Char. Size large; color without reddish brown tint.

Color. Above dull hair brown shaded with olive; beneath grayish tinged with buff, base of fur darker, ears and membranes blackish brown, posterior edge of wing and membrane lighter.

Measurements. Forearm, 42; first finger to end of claw, 7; second metacarpal, 40; fourth metacarpal, 39; fifth metacarpal, 39; tibia, 21; foot, 15; ear, 13; tragus, 8. Skull: length, 17; greatest width of braincase, 9.

1146. *Myotis evotis* (H. Allen).

Vespertilio evotis H. Allen, Mon. N. Am. Bats, 1864, p. 48.

Myotis evotis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 406. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 574. Zoöl. Ser.

PROMINENT-EARED BAT.

Type locality. Unknown; possibly Monterey, Monterey County, California.

Geogr. Distr. State of Vera Cruz, Mexico, north and west to the Pacific coast of the United States.

1147. *Myotis peninsularis* Miller.

Myotis peninsularis Miller, Ann. Mag. Nat. Hist., 7th Ser., II, 1898, p. 124. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 573. Zoöl. Ser.

LOWER CALIFORNIA BAT.

Type locality. San José del Cabo, Lower California, Mexico.

Geogr. Distr. Cape Region of Lower California, Mexico.

1148. *Myotis vivesi* Menegaux.

Myotis vivesi Meneg., Bull. Mus. Hist. Nat. Paris, 1901, p. 323.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 574. Zoöl. Ser.

CARDONAL ISLAND BAT.

Type locality. Cardonal Island, Archipelago of Salsi Pudes, off east coast of Lower California, Mexico.

Geogr. Distr. Archipelago of Salsi Pudes, Lower California, Mexico.

1149. *Myotis milleri* Elliot.

Myotis milleri Elliot, Pub. Field Columb. Mus., III, 1903, p. 172.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 575. Zoöl. Ser.

MILLER'S BAT.

Type locality. La Grulla, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 8,000 feet.

Geogr. Distr. San Pedro Martir Mountains, Lower California, Mexico.

1150. *Myotis nigricans* (Maximilian).

Vespertilio nigricans Max., Beitr. Natur. Bras., II, 1826, p. 266.

Vespertilio concinnus H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 280.

Myotis nigricans Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 575, figs. 107, LXXXV. Zoöl. Ser.

GRIZZLED BROWN BAT.

Type locality. Fazenda de Aga, near the Iritiba River, south-eastern Brazil.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico, south to Colombia and Brazil; West Indies.

1151. *Myotis chiriquensis* J. A. Allen.

Myotis chiriquensis J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 77. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 576. Zoöl. Ser.

CHIRIQUI BAT.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

1152. *Myotis dominicensis* Miller.

Myotis dominicensis Miller, Proc. Biol. Soc. Wash., xv, 1902, p. 243. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 576. Zoöl. Ser.

DOMINICAN COMMON BAT.

Type locality. Island of Dominica, West Indies.

Geogr. Distr. Known only from the type locality.

1153. *Myotis yumanensis* (H. Allen).

Vespertilio yumanensis H. Allen, Mon. N. Am. Bats, 1864, p. 58.

Myotis yumanensis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 403. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 576. Zoöl. Ser.

FORT YUMA BAT.

Type locality. Old Fort Yuma, San Diego County, California.

Geogr. Distr. State of San Luis Potosi, Mexico, into southwestern United States.

a. *Myotis yumanensis saturatus* Miller.

Myotis yumanensis saturatus Miller, N. Am. Faun., No. 13, 1897, p. 68. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 403. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 577. Zoöl. Ser.

DARK YUMA BAT.

Type locality. Hamilton, Skagit County, Washington.

Geogr. Distr. State of Michoacan, Mexico, north to Oregon, Washington, and British Columbia.

1154. *Myotis orinomus* Elliot.

Myotis orinomus Elliot, Pub. Field Columb. Mus., III, 1903, p. 228.

Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 577. Zoöl. Ser.

LA GRULLA BROWN BAT.

Type locality. La Grulla, San Pedro Martir Mountains, Lower California, Mexico. Altitude, 8,000 feet.

Geogr. Distr. Lower California, Mexico. Range unknown.

1155. *Myotis californicus* (Audubon & Bachman).

Vespertilio californicus Aud. & Bachm., Journ. Acad. Nat. Scien. Phil., 1842, p. 285.

Vespertilio nitidus H. Allen, Proc. Acad. Nat. Scien. Phil., 1862, p. 247.

Vespertilio oregonensis H. Allen, Mon. N. Am. Bats, 1864, p. 61.

Vespertilio obscurus H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 281.

Vespertilio volans H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 282.

Vespertilio exilis H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 283.

Vespertilio tenuidorsalis H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 283.

Vespertilio yumanensis H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 283. (nec H. Allen, 1864.)

Vespertilio melanorhinus Merr., N. Am. Faun., No. 3, 1890, p. 46.

Vespertilio nitidus henshawi H. Allen, Mon. N. Am. Bats, 1894, p. 103.

Vespertilio nigricans H. Allen, Mon. N. Am. Bats, 1894, p. 97. (nec Max., 1826.)

Myotis californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 403. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 578. Zoöl. Ser.

LITTLE CALIFORNIA BAT.

Type locality. California.

Geogr. Distr. From Wyoming south into Lower California and northern Mexico, Mexico.

a. *Myotis californicus caurinus* Miller.

Myotis californicus caurinus Miller, N. Am. Faun., No. 13, 1897,
p. 72. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901,
p. 404. Zoöl. Ser.

GRAHAM ISLAND BAT.

Type locality. Massett, Graham Island, Queen Charlotte Islands,
British Columbia, Canada.

Geogr. Distr. Humid coast districts of British Columbia, Wash-
ington, Oregon, and possibly northern California.

b. *Myotis californicus ciliolabrum* (Merriam).

Vespertilio ciliolabrum Merr., Proc. Biol. Soc. Wash., IV, 1886, p. 2.

Myotis californicus ciliolabrum Elliot, Syn. N. Am. Mamm.,
F. C. M. Pub., 11, 1901, p. 404. Zoöl. Ser.

HAIRY-LIPPED BAT.

Type locality. Near Banner, Trego County, Kansas.

Geogr. Distr. Kansas and central South Dakota; limits of
range unknown.

c. *Myotis californicus jaliscensis* Menegaux.

Myotis californicus jaliscensis Meneg., Bull. Mus. Hist. Nat. Paris,
1901, p. 321. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. 11, 1904, p. 579. Zoöl. Ser.

JALISCO BROWN BAT.

Type locality. Vicinity of Lake Zacoalco, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico. Range unknown.

d. *Myotis californicus mexicanus* (Saussure).

Vespertilio mexicanus Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860,
p. 282.

Myotis californicus mexicanus Elliot, Mamm. Middle Amer. & W.
Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 579. Zoöl. Ser.

LITTLE MEXICAN BAT.

Type locality. Unknown.

Geogr. Distr. States of San Luis Potosi, Michoacan, and Oaxaca,
Mexico. Limits of range unknown.

e. *Myotis californicus pallidus* Stephens.

Myotis californicus pallidus Steph., Proc. Biol. Soc. Wash., XIII,
1900, p. 153. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 405. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. In-
dies, F. C. M. Pub., IV, Pt. 11, 1904, p. 579. Zoöl. Ser.

PALE BAT.

Type locality. Vallecito, San Diego County, California.

Geogr. Distr. Southern California, into Lower California, Mexico.

f. Myotis californicus durangæ J. A. Allen.

Myotis californicus durangæ J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1903, p. 612. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 579. Zoöl. Ser.

DURANGO BROWN BAT.

Type locality. Rio Sestin, State of Durango, Mexico.

Geogr. Distr. State of Durango, Mexico. Range unknown.

1156. *Myotis subulatus* (Say).

Vespertilio subulatus Say, in Long's Exped. Rocky Mts., II, 1823, p. 65.

Vespertilio gryphus var. (b) H. Allen, Mon. N. Am. Bats, 1894, p. 80.

Vespertilio gryphus var. *septentrionalis* Trouess., Cat. Mamm. t. Viv. q. Foss., 1897, p. 131.

Myotis subulatus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 405. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 580. Zoöl. Ser.

SMALL-WINGED BAT.

Type locality. Near La Junta, Arkansas River, Otero County, Colorado.

Geogr. Distr. United States and Canada, east of Rocky Mountains south to State of Sonora, Mexico.

a. Myotis subulatus keenii (Merriam).

Vespertilio subulatus keenii Merr., Amer. Nat., xxix, 1895, p. 860.

Myotis subulatus keenii Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 405. Zoöl. Ser.

KEENE'S BROWN BAT.

Type locality. Massett, Graham Island, Queen Charlotte Islands, British Columbia, Canada.

Geogr. Distr. Known only from the type locality.

1157. *Myotis lucifugus* (Le Conte).

Vespertilio lucifugus Le Conte, McMurtrie, Cuv. Anim. Kingd., I. App., 1831, p. 431.

Vespertilio affinis H. Allen, Mon. N. Am. Bats, 1864, p. 53.

Vespertilio carolinæ Dobson, Cat. Chirop. Brit. Mus., 1878, p. 325.

Vespertilio lucifugus austroriparius Rhoads, Proc. Acad. Nat. Scien. Phil., 1897, p. 227.

Myotis lucifugus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 402, fig. 84. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 580. Zoöl. Ser.

LITTLE BROWN BAT.

Type locality. Near Riceboro, southern part of Liberty County, Georgia.

Geogr. Distr. Hudson Bay to Brazil, South America.

a. *Myotis lucifugus longicrus* (True).

Vespertilio longicrus True, Science, VIII, 1886, p. 588.

Vespertilio albescens H. Allen, Mon. N. Am. Bats, 1893, p. 92.
(nec Geoffroy.)

Myotis lucifugus longicrus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 402. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 581. Zoöl. Ser.

TRUE'S BAT.

Type locality. Puget Sound, Washington.

Geogr. Distr. Puget Sound, east to Wyoming, south to southern California and Arizona; also Lower California and northern Mexico.

b. *Myotis lucifugus alascensis* Miller.

Myotis lucifugus alascensis Miller, N. Am. Faun., No. 13, 1897, p. 63. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 402. Zoöl. Ser.

ALASKA BAT.

Type locality. Sitka, Alaska.

Geogr. Distr. Coast district of southern Alaska, and also of northern British Columbia, Canada.

1158. *Myotis thysanodes* Miller.

Vespertilio albescens evotis H. Allen, Mon. N. Am. Bats, 1894, p. 90.

Vespertilio albescens velifer H. Allen, Mon. N. Am. Bats, 1894, p. 93.

Myotis thysanodes Miller, N. Am. Faun., No. 13, 1897, p. 80.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 572. Zoöl. Ser.

Myotis evotis thysanodes Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 406. Zoöl. Ser.

FRINGED BAT.

Type locality. Old Fort Tejon, in mountains south of Kern Lake, Kern County, California.

Geogr. Distr. Southern California to State of Michoacan, Mexico.

Genus 156. **Lasionycteris.**

Lasionycteris Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, 1865, p. 648. Type *Vespertilio noctivagans* Le Conte.

Scotophilus H. Allen, Mon. N. Am. Bats, 1864, p. 27. (nec Leach, Part.)

Cnephaiophilus Fitzin., Sitzung. K. Akad. Wiss. Wien, LXII, 1870, abth. 1, p. 8.

Vesperides Coues, in Coues & Yarrow, Zoöl. Wheeler's Exped., 1875, p. 83.

Vesperugo Dobson, Cat. Chirop. Brit. Mus., 1878, p. 183. (Part.)

1159. *Lasionycteris noctivagans* (Le Conte).

Vespertilio noctivagans Le Conte, McMurtrie, Cuv. Anim. Kingd., Am. ed., 1, 1831, p. 31.

Vespertilio auduboni Harl., Am. Month. Journ. Geol. & Nat. Hist., 1831, p. 220, pl. II.

Vespertilio pulverulentus Temm., Mon. Mamm., II, 1835, p. 325.

Lasionycteris noctivagans Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 407, fig. 85. Zoöl. Ser.

NIGHT-WANDERING BAT.

Type locality. Eastern United States; exact locality unknown.

Geogr. Distr. North America, north of Mexico, from the Atlantic to the Pacific Ocean.

Genus 157. *Pipistrellus*.

Pipistrellus Kaup, Skizzirte Entwick.-Gesch. u. Natürl. Syst. d. Europ. Thierw., Th. 1, 1829, pp. 97, 98. Type *Vespertilio pipistrellus* Schreber.

Vesperugo Keyserl. & Blas., Wieg. Archiv f. Naturg., 5ter Jahrg., Bd. 1, 1839, p. 312. (Part.)

Nannugo Kolenati, Allgem. Deutsch. Naturh. Zeitg. Dresden, neue Folge II, 1856, pp. 131, 169-172.

Hypsugo Kolenati, Allgem. Deutsch. Naturh. Zeitg. Dresden, neue Folge II, 1856, pp. 131, 167-169.

Scotophilus H. Allen, Mon. N. Am. Bats, 1864, p. 27. (Part, nec Leach.)

1160. *Pipistrellus hesperus* (H. Allen).

Scotophilus hesperus H. Allen, Mon. N. Am. Bats, 1864, p. 43.

Vesperugo merriami Dobson, Cat. Chirop. Brit. Mus., 1878, p. 228.

Pipistrellus hesperus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 409, fig. 86. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 582, figs. 108, LXXXVI. Zoöl. Ser.

WESTERN BAT.

Type locality. Old Fort Yuma, San Diego County, California.

Geogr. Distr. Western Texas to Pacific coast and southern California, south into Lower California, Mexico.

a. Pipistrellus hesperus apus Elliot.

Pipistrellus hesperus apus Elliot, Pub. Field Columb. Mus., III, 1904, p. 269. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 583. Zoöl. Ser.

SWIFT BAT.

Type locality. Providentia Mines, State of Sonora, Mexico.

Geogr. Distr. State of Sonora, Mexico. Range unknown.

b. Pipistrellus hesperus australis Miller.

Pipistrellus hesperus australis Miller, N. Am. Faun., No. 13, 1897, p. 90. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 584. Zoöl. Ser.

ALLIED BAT.

Type locality. Barranca Ibarra, State of Jalisco, Mexico.

Geogr. Distr. Known only from the type locality.

1161. *Pipistrellus subflavus* (F. Cuvier).

Vespertilio subflavus F. Cuv., Nouv. Ann. Mus. Hist. Nat. Paris, 1832, p. 17.

Vespertilio erythrodactylus Temm., Mon. Mamm., II, 1835-41, p. 238.

Vesperugo carolinensis H. Allen, Mon. N. Am. Bats, 1894, p. 121. (nec Geoffroy.)

Pipistrellus subflavus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 409. Zoöl. Ser.

YELLOWISH-BROWN BAT.

Type locality. Eastern United States. Georgia?

Geogr. Distr. Atlantic coast west to Iowa, south to eastern and southern Texas.

a. Pipistrellus subflavus obscurus Miller.

Pipistrellus subflavus obscurus Miller, N. Am. Faun., No. 13, 1897, p. 93. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 409. Zoöl. Ser.

DUSKY BAT.

Type locality. Lake George, Warren County, New York.

Geogr. Distr. Known only from the type locality.

1162. *Pipistrellus veræcrucis* (Ward).

Vesperugo veræcrucis Ward, Amer. Nat., xxv, 1891, p. 745.

Pipistrellus veræcrucis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 584. Zoöl. Ser.

LAS VIGAS BAT.

Type locality. Las Vigas, Jalapa, State of Vera Cruz, Mexico.

Geogr. Distr. Known only from the type locality.

1163. *Pipistrellus vagans* (Dobson).

Vesperugo vagans Dobson, Ann. Mag. Nat. Hist., 5th Ser., IV, 1879, p. 135.

Pipistrellus vagans Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 584. Zool. Ser.

WANDERING BERMUDA BAT.

Type locality. Bermuda.

Geogr. Distr. Bermuda.

1164. *Pipistrellus cinnamomeus* Miller.

Pipistrellus cinnamomeus Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 390. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 585. Zool. Ser.

CINNAMON BAT.

Type locality. Montechristo, State of Tabasco, Mexico.

Geogr. Distr. Known only from the type locality.

Genus 158. *Vespertilio*.

Vespertilio Linn., Syst. Nat., I, 1758, p. 31; I, 1766, p. 46. Type *Vespertilio murinus* Linnaeus. (nec Schreber.)

Eptesicus Rafin., Ann. Nat., I, 1820, p. 2.

Cnephæus Kaup, Skizzirte Entw.-Gesch. u. Natürl. Syst. Europ. Thierw., I, 1829, p. 103.

Noctula Bonap., Iconog. Faun. Ital., I, 1837, fasc. XXI.

Vesperugo Keyserl. & Blas., Wieg. Archiv f. Naturg., Bd. I, 1839, p. 312. (Part.)

Vesperus Keyserl. & Blas., Wieg. Archiv f. Naturg., Bd. I, 1839, p. 313.

Cateorus Kolenati, Allgem. Deutsch. Naturh. Zeit. Dresden, neue Folge, II, 1856, pp. 131, 162-163.

Meteoros Kolenati, Allgem. Deutsch. Naturh. Zeit. Dresden, neue Folge, II, 1856, pp. 131, 163-167.

Marsipolæmus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1872, p. 260.

Adelonycteris H. Allen, Proc. Acad. Nat. Scien. Phil., 1892, p. 466.

Subgenus A. *Vespertilio*.1165. *Vespertilio fuscus* Beauvois.

Vespertilio fuscus Beauv., Cat. Peale's Mus. Phil., 1796, p. 14.

Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 410,

fig. 87. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 587, figs. 109, LXXXVII. Zoöl. Ser. *Vespertilio carolinensis* Geoff., Ann. Mus. Hist. Nat. Paris, VIII, 1806, p. 193.

Vespertilio phaiops Rafn., Am. Month. Mag., III, 1818, p. 445.

Eptesicus melanops Rafn., Ann. Nat., 1820, p. 2.

Vespertilio arquatus Say, Long's Exped. Rocky Mts., I, 1823, p. 167. (note.)

Vespertilio ursinus Temm., Mon. Mamm., II, 1835, p. 235.

Scotophilus greenii Gray, List. Spec. Mamm. Brit. Mus., I, 1843, p. 30.

BROWN BAT.

Type locality. Philadelphia, Pennsylvania.

Geogr. Distr. Eastern United States north of Florida, and in the adjoining British Provinces.

a. *Vespertilio fuscus osceola* (Rhoads).

Eptesicus fuscus osceola Rhoads, Proc. Acad. Nat. Scien. Phil., 1901, p. 618.

FLORIDA BROWN BAT.

Type locality. Tarpon Springs, Hillsboro County, Florida.

Geogr. Distr. Florida.

Genl. Char. Similar to *V. fuscus*, but of a cinnamon brown color instead of sepia.

Color. Cinnamon brown, uniform.

Measurements. Total length, 110; tail, 38; hind foot, 9.5.

b. *Vespertilio fuscus melanopterus* (Rehn).

Eptesicus fuscus melanopterus Rehn, Proc. Acad. Nat. Scien. Phil., 1904, p. 590.

BLACK-WINGED BAT.

Type locality. Mount Tallac, California.

Geogr. Distr. Known only from the type locality.

Genl. Char. Similar to *V. f. osceola* Rhoads, color different.

Color. Above dark cinnamon; lightest on top of head and on shoulders; beneath reddish wood brown; membranes and face blackish.

Measurements. Total length, 104; tail vertebræ, 40; ear, 12; tibia, 17; forearm (average of five), 47.

c. *Vespertilio fuscus bernardinus* (Rhoads).

Eptesicus fuscus bernardinus Rhoads, Proc. Acad. Nat. Scien. Phil., 1901, p. 619.

Vespertilio fuscus bernardinus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 589. Zoöl. Ser.

SAN BERNARDINO BROWN BAT.

Type locality. San Bernardino Valley, California.

Geogr. Distr. Southern California and Lower California, Mexico.

d. *Vespertilio fuscus cubensis* (Gray).

Scotophilus cubensis Gray, Ann. Nat. Hist., IV, 1839, p. 7.

Vespertilio dutertreus Gerv., in Ram. de la Sagra's Hist. Isle de Cuba, Mamm., 1840, p. 6. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 588. Zool. Ser.

CUBAN BROWN BAT.

Type locality. Cuba.

Geogr. Distr. Island of Cuba.

e. *Vespertilio fuscus miradorensis* (H. Allen).

Scotophilus miradorensis H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 287.

Vespertilio fuscus miradorensis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 588. Zool. Ser.

MIRADOR BROWN BAT.

Type locality. Mirador, State of Vera Cruz, Mexico.

Geogr. Distr. Southern Mexico into Guatemala and Costa Rica.

f. *Vespertilio fuscus bahamensis* Miller.

Vespertilio fuscus bahamensis Miller, N. Am. Faun., No. 13, 1897, p. 101. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 588. Zool. Ser.

BAHAMA BROWN BAT.

Type locality. Nassau, New Providence Island, Bahamas.

Geogr. Distr. Known only from the type locality.

g. *Vespertilio fuscus peninsulæ* Thomas.

Vespertilio fuscus peninsulæ Thomas, Ann. Mag. Nat. Hist., 7th Ser., 1898, p. 43. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 589. Zool. Ser.

LOWER CALIFORNIA BROWN BAT.

Type locality. Sierra Laguna, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico.

h. *Vespertilio fuscus propinquus* (Peters).

Vesperus propinquus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1872, p. 262.

Vespertilio fuscus propinquus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 589. Zool. Ser.

ALLIED BROWN BAT.

Type locality. Santa Isabel, Guatemala.

Geogr. Distr. Guatemala and Nicaragua, Central America.

1166. Vespertilio gaumeri (J. A. Allen).

Adelonycteris gaumeri J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 231.

Vespertilio gaumeri Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 590. Zoöl. Ser.

YUCATAN BROWN BAT.

Type locality. Izamal, Yucatan, Mexico.

Geogr. Distr. Yucatan, Mexico.

Subgenus B. **Marsipolæmus.**

1167. Vespertilio albigularis (Peters).

Vesperus albigularis Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1872, p. 260.

Vespertilio albigularis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 590. Zoöl. Ser.

WHITE-THROATED BROWN BAT.

Type locality. Mexico?

Geogr. Distr. Unknown.

Genus 159. **Lasiurus.**

Lasiurus Gray, Zoöl. Misc., 1831, No. 1, p. 38. Type *Vespertilio borealis* Müller.

Atalapha Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1870, p. 907. (nec Rafin.)

1168. Lasiurus borealis (Müller).

Vespertilio borealis Müll., Natursyst., Suppl., 1776, p. 21.

Vespertilio noveboracensis Erxl., Syst. Reg. Anim., I, 1777, p. 155.

Vespertilio lasiurus Schreb., Säugth., Abth. I, 1781, Taf LXII B.

Vespertilio noveboracensis Bodd., Elench. Anim., I, 1785, p. 71.

Vespertilio rubellus Beauv., Cat. Peale's Mus., 1796, p. 204.

Vespertilio rubra Ord, Guthrie's Geogr., 2d Amer. ed., II, 1815, p. 291.

Vespertilio tessellatus Rafin., Am. Month. Mag., III, 1818, p. 445.

Vespertilio monachus Rafin., Am. Month. Mag., III, 1818, p. 445.

Vespertilio rufus Warden, Desc. États-Unis Amér., v, 1820, p. 606.

Lasiurus funebris Fitzin., Sitzungs. K. Akad. Wiss. Wien., LXII, 1870, p. 46.

Atalapha borealis Rhoads, Amer. Nat., xxviii, 1894, p. 523.

Lasiurus borealis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 411, fig. 88. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 592. Zoöl. Ser.

RED BAT.

Type locality. State of New York.

Geogr. Distr. North America east of Rocky Mountains, from Canada southward through Mexico and Central America into South America to Brazil, and Chili.

a. *Lasiurus borealis pfeifferi* (Gundlach).

Atalapha pfeifferi Gundl., Monatsb. K. Preuss. Akad. Wiss. Berl., 1861, p. 152.

Lasiurus borealis pfeifferi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 593. Zoöl. Ser.

PFEIFFER'S BAT.

Type locality. Cuba.

Geogr. Distr. Island of Cuba.

b. *Lasiurus borealis seminolus* (Rhoads).

Atalapha borealis seminola Rhoads, Proc. Acad. Nat. Scien. Phil., 1895, p. 32.

Lasiurus borealis seminolus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 413. Zoöl. Ser.

FLORIDA RED BAT.

Type locality. Tarpon Springs, Hillsboro County, Florida.

Geogr. Distr. South Carolina to southern Texas; Nassau, New Providence Island, Bahamas.

c. *Lasiurus borealis teliotis* (H. Allen).

Atalapha teliotis H. Allen, Proc. Am. Phil. Soc., XXIX, 1891, p. 5.

Lasiurus borealis teliotis Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 413. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 593. Zoöl. Ser.

CALIFORNIA RED BAT.

Type locality. Unknown. California?

Geogr. Distr. Sacramento Valley, California, south to Comodu, Lower California, Mexico.

d. *Lasiurus borealis mexicanus* (Saussure).

Atalapha mexicana Sauss., Rev. Mag. Zool., 2me Sér., XIII, 1861, p. 97.

Atalapha frantzii Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1871, p. 908.

Lasiurus borealis mexicanus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 594. Zoöl. Ser.

MEXICAN RED BAT.

Type locality. Southern Mexico; exact locality unknown.

Geogr. Distr. Tres Marias Islands, State of Jalisco to State of Vera Cruz, south into Central America.

1169. Lasiurus cinereus (Beauvois).

Vespertilio cinereus Beauv., Cat. Peale's Mus. Phil., 1796, p. 15.

Vespertilio pruinosus Say, Long's Exped. Rocky Mts., 1. 1823, p. 167. (Footnote.)

Lasiurus cinereus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 413. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 595, figs. 110, LXXXVIII. Zoöl. Ser.

HOARY BAT.

Type locality. Philadelphia, Pennsylvania.

Geogr. Distr. North America from the Atlantic to the Pacific, at different seasons, south through Mexico, Central and South America to Chili.

Genus 160. **Dasypterus.**

Dasypterus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1871, p. 912. Type *Lasiurus intermedius* H. Allen.

1170. Dasypterus intermedius (H. Allen).

Lasiurus intermedius H. Allen, Proc. Acad. Nat. Scien. Phil., 1862, p. 246.

Dasypterus intermedius Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 414, fig. 89. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 595, fig. LXXXIX. Zoöl. Ser.

INTERMEDIATE BAT.

Type locality. Matamoros, State of Tamaulipas, Mexico.

Geogr. Distr. State of Tamaulipas, Mexico, north to the Gulf States of the United States, except possibly Florida.

Dasypterus ega xanthinus Thomas.

Dasypterus ega xanthinus Thomas, Ann. Mag. Nat. Hist., 6th Ser., 1897, p. 544. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 597, fig. III. Zoöl. Ser.

SIERRA LAGUNA BAT.

Type locality. Sierra Laguna, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico.

Dasypterus ega panamensis Thomas.

Dasypterus ega panamensis Thomas, Ann. Mag. Nat. Hist., 7th Ser., VIII, 1901, p. 246. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 597. Zoöl. Ser.

PANAMA BAT.

Type locality. Bogava, Chiriqui, Panama. Altitude, 1,000 feet.
Geogr. Distr. South Central America. Range unknown.

1171. *Dasypterus floridanus* Miller.

Dasypterus floridanus Miller, Proc. Acad. Nat. Scien. Phil., 1902,
 p. 392.

MILLER'S FLORIDA BAT.

Type locality. Lake Kissimmee, Osceola County, Florida.

Geogr. Distr. Florida.

Genl. Char. Like *D. intermedius*, but smaller.

Color. Same as *D. intermedius*.

Measurements. Total length, 129; tail, 52; forearm, 49; thumb, 10; second finger, 61; third finger, 98; fourth finger, 80; fifth finger, 65; tibia, 20; foot, 9; ear from crown, 11; from meatus, 17; width of ear, 11.

Genus 161. *Nycticeius*.

Nycticeius Rafin., Journ. Phys., LXXXVIII, 1819, p. 417. Type (by elimination) *Vespertilio humeralis* Rafinesque.

1172. *Nycticeius humeralis* (Rafinesque).

Vespertilio humeralis Rafin., Amer. Month. Mag., III, 1818, p. 445.

Nycticeia crepuscularis Le Conte, McMurtrie, Cuv. Anim. King., I,
 1831, p. 432.

Nycticejus humeralis Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
 II, 1901, p. 415, fig. 90. Zoöl. Ser.

Nycticeius humeralis Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., IV, Pt. II, 1904, p. 598, figs. 112, xc. Zoöl. Ser.

RAFINESQUE'S BAT.

Type locality. Kentucky.

Geogr. Distr. Eastern United States west to Arkansas and southern Texas.

a. *Nycticeius humeralis cubanus* (Gundlach).

Vesperus cubanus Gund., Monatsb. K. Preuss. Akad. Wiss. Berl.,
 1861, p. 150.

Nycticeius humeralis cubanus Elliot, Mamm. Middle Amer. & W.
 Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 599. Zoöl. Ser.

GUNDLACH'S BAT.

Type locality. Near Cardenas, Cuba.

Geogr. Distr. Island of Cuba.

Genus 162. ***Rhogoessa.**

Rhogeëssa! H. Allen, Proc. Acad. Nat. Scien. Phil., 1866, p. 285.
Type *Rhogeëssa! tumida* H. Allen.

1173. Rhogoessa tumida H. Allen.

Rhogeëssa! tumida H. Allen, Proc. Acad. Nat. Scien. Phil., 1866,
p. 286.

Rhogeëssa tumida Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 601, figs. 113, xci. Zool. Ser.

RESTLESS BAT.

Type locality. Mirador, State of Vera Cruz, Mexico.

Geogr. Distr. Southern Mexico into Central America.

1174. Rhogoessa parvula H. Allen.

Rhogeëssa! parvula H. Allen, Proc. Acad. Nat. Scien. Phil., 1866,
p. 285.

Rhogeëssa parvula Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 601. Zool. Ser.

TRES MARIAS ISLANDS BAT.

Type locality. Tres Marias Islands, State of Jalisco, Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, through
Mexico to Costa Rica, Central America.

1175. Rhogoessa gracilis Miller.

Rhogeëssa! gracilis Miller, N. Am. Faun., No. 13, 1897, p. 126.

Rhogeëssa gracilis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 602. Zool. Ser.

GRACEFUL BAT.

Type locality. Piaxtla, State of Puebla, Mexico.

Geogr. Distr. State of Puebla, Isthmus of Tehuantepec, Mexico.

1176. Rhogoessa alleni Thomas.

Rhogeëssa! alleni Thomas, Ann. Mag. Nat. Hist., 6th Ser., x, 1892,
p. 477.

Rhogeëssa alleni Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 602. Zool. Ser.

SANTA ROSALIA BAT.

Type locality. Santa Rosalia, near Autlin, State of Jalisco,
Mexico.

Geogr. Distr. Known only from the type locality.

* ῥώζ, ῥωγοῦ-έσσα = *rhogoessa*, having a cleft or rent.

Subfamily II. **Plecotinæ.**Genus 163. **Euderma.**

Euderma H. Allen, Proc. Acad. Nat. Scien. Phil., 1892, p. 467. Type

Histiotus maculatus J. A. Allen.

Histiotus J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891,
p. 195. (nec Gervais.)

1177. Euderma maculatum (J. A. Allen).

Histiotus maculatus J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y.,
1891, p. 195.

Euderma maculata Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11,
1901, p. 398. Zoöl. Ser.

SPOTTED GREAT-EARED BAT.

Type locality. Near Piru, Ventura County, California.

Geogr. Distr. Known only from the type locality.

Genus 164. **Corynorhinus. Club-nosed or Big-eared Bats.**

Corynorhinus H. Allen, Proc. Acad. Nat. Scien. Phil., 1865, p. 173.

Type *Plecotus macrotis* Le Conte.

Plecotus Le Conte, McMurtrie, Cuv. Anim. King., 1, App., 1831,
p. 431. (nec Geoffroy.)

Synotus H. Allen, Mon. N. Am. Bats, 1864, p. 62. (nec Keyserl.
& Blasius.)

1178. Corynorhinus macrotis (Le Conte).

Plecotus macrotis Le Conte, McMurtrie, Cuv. Anim. Kingd., 1, 1831,
p. 431.

Plecotus lecontii Cooper, Ann. N. Y. Lyc. Nat. Hist., 14, 1837,
p. 72.

Corynorhinus macrotis Elliot, Syn. N. Am. Mamm., F. C. M. Pub.,
11, 1901, p. 399. Zoöl. Ser.

BIG-EARED BAT.

Type locality. Probably Le Conte's plantation near Riceboro,
Georgia.

Geogr. Distr. South Atlantic States to Louisiana.

a. Corynorhinus macrotis pallescens Miller.

Synotus townsendi H. Allen, Mon. N. Am. Bats, 1864, p. 65. (nec
P. townsendi Cooper.)

Corynorhinus macrotis pallescens Miller, N. Am. Faun., No. 13, 1897, p. 52. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 399. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 604, figs. 114, XCII (*C. macrotis*). Zoöl. Ser.

PALLID BIG-EARED BAT.

Type locality. Keam Cañon, Navajo County, Arizona.

Geogr. Distr. From California and Colorado south and east to western Texas, and south to State of Oaxaca, Mexico.

b. Corynorhinus macrotis townsendi (Cooper).

Plecotus townsendii Cooper, Ann. N. Y. Lyc. Nat. Hist., IV, 1837, p. 73.

Corynorhinus macrotis townsendi Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 400, fig. 83. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 604. Zoöl. Ser.

TOWNSEND'S BIG-EARED BAT.

Type locality. Region of the Columbia River, Oregon.

Geogr. Distr. Humid coast region of Oregon, Washington, and southern British Columbia, Canada.

Subfamily III. **Antrozoinæ.**

Genus 165. **Antrozous.**

Antrozous H. Allen, Proc. Acad. Nat. Scien. Phil., 1862, p. 248.

Type *Vespertilio pallidus* Le Conte.

1179. Antrozous pallidus (Le Conte).

Vespertilio pallidus Le Conte, Proc. Acad. Nat. Scien. Phil., 1856, p. 437.

Antrozous pallidus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 396, fig. 82. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 605, figs. 115, XCIII. Zoöl. Ser.

BIG-EARED PALE BAT.

Type locality. El Paso, El Paso County, Texas.

Geogr. Distr. Nevada, eastern Texas, south to western Mexico and to Cape St. Lucas, Lower California, Mexico.

a. Antrozous pallidus pacificus Merriam.

Antrozous pallidus pacificus Merr., Proc. Biol. Soc. Wash., XI, 1897, p. 180. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., 11, 1901, p. 397. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. 11, 1904, p. 607. Zoöl. Ser.

PACIFIC BIG-EARED BAT.

Type locality. Old Fort Tejon, in mountains south of Kern Lake, Kern County, California.

Geogr. Distr. Southern California, into Lower California, Mexico.

1180. *Antrozous minor* Miller.

Antrozous minor Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 389. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 607. Zoöl. Ser.

LITTLE COMONDU BAT.

Type locality. Comondu, Lower California, Mexico.

Geogr. Distr. Southern Lower California, Mexico.

Family II. **Noctilionidæ.**Subfamily I. **Emballonurinae.**Genus 166. **Rhynchonycteris.**

Rhynchonycteris Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1867, p. 477. Type *Vespertilio naso* Maximilian.

1181. **Rhynchonycteris naso** (Maximilian).

Vespertilio naso Max., Schinz's Thierr., I, 1821, p. 179.

Proboscidea saxatilis Spix, Simiar. et Vespert. Bras., 1823, p. 62, pl. xxxv, fig. VIII.

Proboscidea rivalis Spix, Simiar. et Vespert. Bras., 1823, p. 62, pl. xxxv.

Emballonura lineata Temm., Mon. Mamm., II, 1835-41, p. 297.

Rhynchonycteris naso Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 609, figs. 116, xciv. Zoöl. Ser.

LONG-NOSED BAT.

Type locality. East coast of Brazil.

Geogr. Distr. Guatemala through Central America, to Brazil, South America.

Genus 167. **Saccopteryx.**

Saccopteryx Illig., Prodr. Syst. Mamm. et Av., 1811, p. 121. Type *Vespertilio lepturus* Schreber.

Urocryptus Temm., V. d. Hoev., Tijds. Nat. Gesch., v, 1838-39, pp. 31-34, pl. II, figs. 3, 4.

Centronycteris Gray, Mag. Zoöl. Bot., II, 1838, p. 499.

1182. Saccopteryx bilineata (Temminck).

Urocryptus bilineatus Temm., V. d. Hoelv., Tijds. Nat. Gesch. en Physiol., v, 1838, p. 33, figs. 3, 4.

Saccopteryx bilineata Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 610, fig. 117. Zoöl. Ser.

WHITE-STRIPED BAT.

Type locality. Surinam.

Geogr. Distr. Guatemala, Central America to Dutch Guiana, South America.

Genus 168. Balantiopteryx.

Balantiopteryx Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1867, p. 476. Type *Balantiopteryx plicata* Peters.

1183. Balantiopteryx plicata Peters.

Balantiopteryx plicata Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1867, p. 476. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 611, figs. 118, xcv. Zoöl. Ser.

POUCHED BAT.

Type locality. Puente Arenas, Costa Rica, Central America.

Geogr. Distr. State of Jalisco, opposite Tres Marias Islands Mexico, into Central America.

1184. Balantiopteryx infusca (Thomas).

Saccopteryx infusca Thomas, Ann. Mag. Nat. Hist., 6th Ser., xx, 1897, p. 546.

Balantiopteryx infusca Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 612. Zoöl. Ser.

THOMAS' BAT.

Type locality. Cachavi, northern Ecuador.

Geogr. Distr. Coban, Guatemala to Ecuador, South America.

Genus 169. Peropteryx.

Peropteryx Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1867, p. 472. Type *Vespertilio caninus* Maximilian.

1185. Peropteryx canina (Maximilian).

Vespertilio caninus Max., Schinz's Thierr., I, 1821, p. 179.

Peropteryx canina Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 614, figs. 119, xcvi. Zoöl. Ser.

DOG-LIKE BAT.

Type locality. East coast of Brazil.

Geogr. Distr. Guatemala, Central America to Brazil.

Genus 170. * **Diclidurus.**

Diclidurus Max., Isis, 1820, p. 1629. Type *Diclidurus albus* Maximilian.

1186. **Diclidurus albus** Maximilian.

Diclidurus albus Max., Isis, 1820, p. 1630. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 615, figs. 120, xcvii. Zoöl. Ser.

Diclidurus freyreissii Max., Abbild. zur Naturg. Bras., 1838, pl. xvi.

WHITE BAT.

Type locality. Mouth of Rio Pardo, east coast of Brazil.

Geogr. Distr. Costa Rica, Central America, south to Brazil, South America.

1187. **Diclidurus virgo** Thomas.

Diclidurus virgo Thomas, Ann. Mag. Nat. Hist., 7th Ser., 1903, p. 377. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 615. Zoöl. Ser.

ESCAZU WHITE BAT.

Type locality. Escazu, Costa Rica.

Geogr. Distr. Central America. Range unknown.

Subfamily II. **Noctilioninae.**Genus 171. **Noctilio.**

Noctilio Linn., Syst. Nat., I, 1766, p. 88. Type *Vespertilio leporinus* Linnæus.

Noctilio leporinus mastivus (Dahl).

Vespertilio mastivus Dahl, Skrift. Naturh. Selsk. Kjöbenh., IV, 1797, p. 132, pl. 7.

Noctilio dorsatus Max., Beit. Natur. Bras., 1826, p. 223.

Noctilio leporinus Burm., Thier. Bras., 1854, p. 60. (nec Linn.)

Noctilio leporinus mastivus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 617, figs. 121, xcviII. Zoöl. Ser.

*Misprinted in Mamm. Middle Amer., etc., p. 614, *Declidurus*.

MUSKY BAT.

Type locality. Island of St. Croix, West Indies.

Geogr. Distr. Islands of Jamaica, Mona and St. Croix, West Indies, and in South America, to Brazil.

Family III. **Molossidæ.**Genus 172. **Molossus.**

Molossus E. Geoff., Ann. Mus. Hist. Nat. Paris, vi, 1805, p. 151.

Type Molossus rufus E. Geoffroy.

Dysopes Illig., Prodr. Syst. Mamm. et Av., 1811, p. 122.

1188. **Molossus rufus** E. Geoffroy.

Molossus rufus E. Geoff., Ann. Mus. Hist. Nat. Paris, vi, 1805, p. 155. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 619, figs. 122, xcix. Zoöl. Ser.

Molossus ursinus Spix, Simiar. et Vespert. Bras., 1823, p. 58, pl. xxv, fig. 4.

Dysopes alecto Temm., Mon. Mamm., i, 1827, p. 231.

Dysopes holosericeus Wagn., Archiv f. Naturg., 1843, p. 368.

Dysopes albus Wagn., Archiv f. Naturg., 1843, p. 368.

RUFIOUS MASTIFF BAT.

Type locality. Paraguay, South America.

Geogr. Distr. Southern Mexico, through Central America to Paraguay and Bolivia.

a. **Molossus rufus obscurus** (E. Geoffroy).

Molossus obscurus E. Geoff., Ann. Mus. Hist. Nat. Paris, vi, 1805, p. 155.

Molossus longicaudatus E. Geoff., Ann. Mus. Hist. Nat. Paris, vi, 1805, p. 155.

Molossus acaticaudatus Desm., Mamm., 1820, p. 116.

Dysopes velox Temm., Mon. Mamm., i, 1827, p. 234.

Molossus fuliginosus Gray, Mag. Zoöl. Bot., II, 1838, p. 501.

Dysopes olivaceo-fuscus Wagn., Abh. Akad. Münch., v, 1844, p. 202.

Dysopes fumarius Burm., Thier. Bras., i, 1854, p. 71.

Molossus aztecus Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 285.

Molossus rufus obscurus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 620. Zoöl. Ser.

DUSKY MASTIFF BAT.

Type locality. Paraguay.

Geogr. Distr. Guatemala, through Central America to Paraguay and Bolivia, South America. West Indies.

1189. *Molossus coibensis* Allen.

Molossus obscurus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 78. (nec E. Geoffroy.)

Molossus coibensis Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 227.

COIBA ISLAND BAT.

Type locality. Coiba Island, Panama.

Geogr. Distr. Restricted to Coiba Island.

Genl. Char. Similar to *M. r. obscurus*, but smaller and blacker, with heavier skull and dentition.

Color. Above deep blackish brown, beneath lighter.

Measurements. Forearm, 34.5-36; first metacarpal, 37.

1190. *Molossus tropidorhynchus* Gray.

Molossus tropidorhynchus Gray, Ann. Nat. Hist., IV, 1839, p. 6.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 620. Zool. Ser.

PUG-NOSED MASTIFF BAT.

Type locality. Cuba.

Geogr. Distr. West Indian Islands.

1191. *Molossus nigricans* Miller.

Molossus nigricans Miller, Proc. Acad. Nat. Scien. Phil., 1902,

p. 395. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 620. Zool. Ser.

BLACKISH MASTIFF BAT.

Type locality. Acaponeta, Territorio de Tepic, Mexico.

Geogr. Distr. Known only from the type locality.

Genus 173. *Promops*.

Promops Gerv., Expéd. du Comte de Castelnau, Zool., Mamm., II,

1855, p. 58, pl. XII, figs. 3, 3a. Type *Promops ursinus* Gervais

= *Molossus nasutus* Spix.

1192. *Promops nasutus* (Spix).

Molossus nasutus Spix, Simiar. et Vespert. Bras., 1823, p. 60, pl.

XXXV, fig. VII.

Molossus fumarius Spix, Simiar. et Vespert. Bras., 1823, p. 60,

pl. XXXV, figs. V, VI.

Promops ursinus Gerv., Expéd. du Com. de Casteln., Zool., Mamm., 1855, p. 59, pl. XII, figs. 3, 3a.

Promops nasutus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 621, fig. c. Zool. Ser.

LARGE-NOSED MASTIFF BAT.

Type locality. Near the Rio San Francisco, Brazil.

Geogr. Distr. Guatemala, through Central America to Brazil, South America.

1193. *Promops abrasus* (Temminck).

Dysopes abrasus Temm., Mon. Mamm., I, 1827, p. 232.

Dysopes longimanus Wagn., Archiv f. Naturg., 1843, p. 367.

Dysopes leucopleura Wagn., Archiv f. Naturg., 1843, p. 367.

Promops abrasus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 623. Zool. Ser.

SHAVED MASTIFF BAT.

Type locality. Brazil.

Geogr. Distr. Guatemala, through Central America to Brazil, South America.

1194. *Promops orthotis* (H. Allen).

Nyctinomus orthotis H. Allen, Proc. Amer. Philos. Soc., xxvi, 1889, p. 561.

Promops orthotis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 623. Zool. Ser.

STRAIGHT-EARED MASTIFF BAT.

Type locality. Spanishtown, Island of Jamaica.

Geogr. Distr. Known only from the type locality.

1195. *Promops glaucinus* (Wagner).

Dysopes glaucinus Wagn., Archiv f. Naturg., 1843, Pt. I, p. 368.

Molossus ferox Gundl., Monatsb. K. Preuss. Akad. Wiss. Berl., 1861, p. 149.

Promops glaucinus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 624, figs. 123, ci. Zool. Ser.

CHESTNUT MASTIFF BAT.

Type locality. Cuyaba, Matto Grosso, Brazil.

Geogr. Distr. Island of Jamaica; in South America to Brazil and Bolivia.

1196. *Promops nanus* Miller.

Promops nanus Miller, Ann. Mag. Nat. Hist., 7th Ser., vi, 1900, p. 470. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 624. Zoöl. Ser.

DWARF MASTIFF BAT.

Type locality. Bogava, Chiriqui, Panama.

Geogr. Distr. Panama, Central America. Range unknown.

1197. *Promops californicus* (Merriam).

Molossus californicus Merr., N. Am. Faun., No. 4, 1890, p. 31.

Promops californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 421, fig. 94. Zoöl. Ser.

CALIFORNIA MASTIFF BAT.

Type locality. Alhambra, Los Angeles County, California.

Geogr. Distr. Southern California. Range unknown.

Genus 174. *Nyctinomops*.

***Nyctinomops* Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 393.**

Type Nyctinomus femorosaccus Merriam.

1198. *Nyctinomops femorosaccus* (Merriam).

Nyctinomus femorosaccus Merr., N. Am. Faun., No. 2, 1889, p. 23. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 417. Zoöl. Ser.

Nyctinomops femorosaccus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 626. Zoöl. Ser.

PALM SPRINGS FREE-TAILED BAT.

Type locality. Agua Caliente, Palm Springs, Riverside County, California.

Geogr. Distr. Southern California to Ensinada, Lower California, Mexico.

1199. *Nyctinomops yucatanicus* Miller.

Nyctinomops yucatanicus Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 393. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 626, fig. 124. Zoöl. Ser.

YUCATAN FREE-TAILED BAT.

Type locality. Chichen Itza, Yucatan.

Geogr. Distr. Yucatan. Range unknown.

1200. *Nyctinomops gracilis* (Wagner).

Dysopes gracilis Wagn., Archiv f. Naturg., 1843, p. 368.

Nyctinomops gracilis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 626. Zoöl. Ser.

GRACEFUL FREE-TAILED BAT.

Type locality. Cuyaba, Matto Grosso, Brazil.

Geogr. Distr. Guatemala, through Central America to Brazil, South America.

1201. *Nyctinomops depressus* (Ward).

Nyctinomops depressus Ward, Amer. Nat., xxv, 1891, p. 747, fig.

Nyctinomops macrotis nevadensis H. Allen, Mon. N. Am. Bats, 1894, p. 171. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 417. Zool. Ser.

Nyctinomops depressus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 627. Zool. Ser.

TUCUBAYA FREE-TAILED BAT.

Type locality. Tucubaya, Federal District, Mexico.

Geogr. Distr. Known only from the type locality.

1202. *Nyctinomops macrotis* (Gray).

Nyctinomops macrotis Gray, Ann. Nat. Hist., IV, 1840, p. 5.

Dysopes auritus Wagn., Archiv f. Naturg., 1843, p. 368.

Dysopes laticaudatus Rengg., Säugeth. Parag., 1830, p. 88.

Dysopes aurispinosus Peale, U. S. Expl. Exp., VIII, 1848, p. 21.

Nyctinomops macrotis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 627. Zool. Ser.

CUBAN FREE-TAILED BAT.

Type locality. Cuba.

Geogr. Distr. Islands of Cuba and Jamaica, West Indies to Brazil and Paraguay.

Genus 175. *Nyctinomus*.

Nyctinomus E. Geoff., Desc. Égypte, Mamm., II, 1813, pp. 114, 128-130, pl. 2, No. 2. Type *Nyctinomus ægyptiacus* E. Geoffroy.

Dinops Savi, Nouv. Giorn. de Lett., 1825, p. 230.

Dysopes Cretzsch., Rüpp. Atl. Reis. Nordl. Afr., Zool., 1826, p. 69. (nec Illig.)

1203. *Nyctinomus antillularum* Miller.

Nyctinomus antillularum Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 398. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 629. Zool. Ser.

DOMINICAN FREE-TAILED BAT.

Type locality. Roseau, Island of Dominica.

Geogr. Distr. Islands of Dominica, Montserrat, St. Kitts and St. Lucia, West Indies.

1204. *Nyctinomus mexicanus* Saussure.

Nyctinomus mexicanus Sauss., Rev. Mag. Zool., 2me Sér., xii, 1860, p. 283. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 629, fig. 125. Zoöl. Ser.

Nyctinomus mohavensis Merr., N. Am. Faun., No. 2, 1889, p. 25. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 418. Zoöl. Ser.

?*Nyctinomus brasiliensis californicus* H. Allen, Mon. N. Am. Bats, 1894, p. 166.

MEXICAN FREE-TAILED BAT.

Type locality. Cofre de Perote, State of Vera Cruz, Mexico. Altitude, 13,000 feet.

Geogr. Distr. Volcano of Popocatepetl, through northern Mexico and the United States. Lower California.

1205. **Nyctinomus cynocephalus* (Le Conte).

Nycticea cynocephala Le Conte, McMurtrie, Cuv. Anim. Kingd., I, 1831, p. 432.

Nyctinomus cynocephalus Bangs, Proc. Bost. Soc. Nat. Hist., 1898, p. 218.

DOG-HEADED FREE-TAILED BAT.

Type locality. Probably the Le Conte plantation near Riceboro, Liberty County, Georgia.

Geogr. Distr. Southeastern United States. Range unknown.

Genl. Char. Size moderately large. Color without any red tint.

Color. Above dull brown; of a grayish hue in some lights; beneath paler.

Measurements. Total length, 97-102; forearm, 38-41; longest finger, 80-84.

1206. *Nyctinomus bahamensis* Rehn.

Nyctinomus bahamensis Rehn, Proc. Acad. Nat. Scien. Phil., 1902, p. 641. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 630. Zoöl. Ser.

BAHAMAN FREE-TAILED BAT.

Type locality. Governor's Harbor, Eleuthera Island, Bahamas.

Geogr. Distr. Eleuthera, Little and Great Abaco, Bahama Islands.

1207. *Nyctinomus musculus* Gundlach.

Nyctinomus musculus Gundl., Monatsb., K. Preuss. Akad. Wiss. Berl., 1861, p. 149. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 630. Zoöl. Ser.

*While this may be distinct from *N. brasiliensis* Geoff., why is it not the same as *N. mexicanus* Saussure?

FREE-TAILED MOUSE BAT.

Type locality. Cuba.

Geogr. Distr. Islands of Cuba, Porto Rico, St. Kitts, and Trinidad.

1208. *Nyctinomus minutus* Miller.

**Nyctinomus brasiliensis* Chapman, Bull. Am. Mus. Nat. Hist. N. Y., 1892, p. 316. (Part.)

Nyctinomus minutus Miller, Bull. Am. Mus. Nat. Hist. N. Y., 1899, p. 173. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 630. Zool. Ser.

LITTLE FREE-TAILED BAT.

Type locality. Trinidad, Island of Cuba.

Geogr. Distr. Island of Cuba.

Family IV. **Thyropteridæ. Funnell-eared Bats.**Genus 176. **Spectrellum.**

Spectrellum Gerv., Expéd. du Comte de Casteln. l'Amér. Sud, Mamm., Zool., 1855, p. 51. Type *Spectrellum macrurum* Gervais.

†*Natalus* (misprint for *Natalis*) Gray, Mag. Zool. Bot., II, 1838, p. 496. Type *Natalus! stramineus* Gray. (nec Lap., Coleopt., 1836, *Natalis*.)

1209. *Spectrellum stramineum* (Gray).

Natalus! stramineus Gray, Mag. Zool. Bot., II, 1838, p. 496.

Spectrellum macrurum Gerv., Compt. Rend. Acad. Scien. Paris, 1856, p. 347.

Natalis stramineus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 632, figs. 126, CII. Zool. Ser.

STRAW-COLORED BAT.

Type locality. Unknown.

Geogr. Distr. Island of Dominica, West Indies; Guatemala, Central America, to Brazil, South America.

a. *Spectrellum stramineum major* (Miller).

Natalus! major Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 398.

Natalis stramineus major Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 633. Zool. Ser.

**Nyctinomus brasiliensis* Is. Geoffroy does not seem to be found beyond the boundaries of South America.

† The genus *Natalus* Gray, 1838, being preoccupied by *Natalis* Lap., 1836, necessitates a new name for the Family, which, by adopting the oldest proposed genus THYROPTERA, according to the rule governing such cases, would be THYROPTERIDÆ.

GREAT BAT.

Type locality. Savaneta, San Domingo, West Indies.

Geogr. Distr. Island of Haiti.

1210. *Spectrellum mexicanum* (Miller).

Natalus! mexicanus Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 399.

Natalis mexicanus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 633. Zoöl. Ser.

SANTA ANITA BAT.

Type locality. Santa Anita, Lower California, Mexico.

Geogr. Distr. Lower California, Mexico.

Genus 177. *Nyctiellus*.

Nyctiellus Gerv., Expéd. du Comte de Castelnau Amér. Sud., Mamm., 1855, p. 84, pl. xv, fig. 6. Type *Vespertilio lepidus* Gervais.

1211. *Nyctiellus lepidus* (Gervais).

Vespertilio lepidus Gerv., in Ramon de la Sagra's Hist. de l'Isle de Cuba, Mamm., 1838, p. 22, pl. I, figs. 1-4.

Vespertilio barbatus Gundl., Wiegmann Archiv f. Naturg., 1840, p. 356.

Nyctiellus lepidus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 634, fig. 127. Zoöl. Ser.

GRACEFUL BAT.

Type locality. Cuba.

Geogr. Distr. Island of Cuba; Isle of Pines.

Genus 178. *Chilonatalis*.

Chilonatalus (sic) Miller, Proc. Acad. Nat. Scien. Phil., 1898, p. 326. Type *Natalus! micropus* Dobson.

1212. *Chilonatalis micropus* (Dobson).

Natalus! micropus Dobson, Proc. Zoöl. Soc., 1880, p. 443.

Chilonatalis micropus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 635. Zoöl. Ser.

SMALL-FOOTED BAT.

Type locality. Environs of Kingston, Island of Jamaica.

Geogr. Distr. Known only from the type locality.

1213. *Chilonatalis brevimanus* (Miller).

Natalus! brevimanus Miller, Proc. Acad. Nat. Scien. Phil., 1898, p. 328.

Chilonatalis brevimanus Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 636, figs. 128, CIII. Zoöl. Ser.

SHORT-HANDED BAT.

Type locality. Old Providence Island, Caribbean Sea.

Geogr. Distr. Known only from the type locality.

1214. *Chilonatalis tumidifrons* Miller.

Chilonatalis tumidifrons Miller, Proc. Biol. Soc. Wash., XVI, 1903,
p. 119.

Chilonatalis tumidifrons Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 637. Zoöl. Ser.

WATLING'S ISLAND BAT.

Type locality. Cave near Sandy Point, at the southwest corner
of Watling's Island, Bahamas.

Geogr. Distr. Watling's and Great Abaco Islands, Bahamas.

Genus 179. **Thyroptera.**

Thyroptera Spix, Simiar. et Vespert. Brasil., 1823, p. 61, tab. xxxvi,
fig. 9. *Type Thyroptera tricolor* Spix.

Hyonycteris Licht. & Peters, Monatsb. K. Preuss. Akad. Wiss.
Berl., 1854, p. 335.

1215. **Thyroptera discifera** (Lichtenstein & Peters).

Hyonycteris discifera Licht. & Peters, Monatsb. K. Preuss. Akad.
Wiss. Berl., 1854, p. 335.

Thyroptera discifera Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 637, figs. 129, CIV. Zoöl. Ser.

DISK-BEARING BAT.

Type locality. Puerto Caballos, District of Cortez, Honduras,
Central America.

Geogr. Distr. Honduras, Central America, south into South
America.

Family V. **Phyllostomatidae. Vampire Bats.**

Subfamily I. **Mormopinæ.**

Genus 180. **Chilonycteris.**

Chilonycteris Gray, Ann. Nat. Hist., IV, 1839, p. 4. *Type Chilonyc-*
teris macleayii Gray.

Lobostoma Gundl., Wieg. Archiv f. Naturg., VI, 1840, p. 356.

Phyllodia Gray, Proc. Zoöl. Soc., 1843, p. 50.

1216. *Chilonycteris macleayi* Gray.

Chilonycteris macleayi Gray, Ann. Mag. Nat. Hist., iv, 1839, p. 5, pl. 1, fig. 2. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 641, fig. cv. Zoöl. Ser.
Lobostoma quadridens Gundl., Wieg. Archiv f. Naturg., vi, 1840, p. 357.

MACLEAY'S BAT.

Type locality. Cuba.

Geogr. Distr. Islands of Cuba, Haiti, and Jamaica, West Indies.

a. *Chilonycteris macleayi inflata* Rehn.

Chilonycteris macleayi Gundl., Ann. Soc. Espan. Hist. Nat. VII, 1878, Cuad. I, p. 140. (nec Gray.)

Chilonycteris macleayi inflata Rehn, Proc. Acad. Nat. Scien. Phil., 1904, p. 190. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, Append., p. 747. Zoöl. Ser.

INFLATED-NOSE BAT.

Type locality. Cueva di Fari, near Pueblo Viejo, Porto Rico.

Geogr. Distr. Island of Porto Rico.

b. *Chilonycteris macleayi grisea* (Gosse).

Chilonycteris grisea Gosse, Nat. Sojourn in Jamaica, 1851, p. 326, pl. vi, fig. 1.

Chilonycteris quadridens Tomes, Proc. Zoöl. Soc., 1861, p. 65. (nec Gundlach.)

Chilonycteris macleayi grisea Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, Append., p. 747. Zoöl. Ser.

GRAY BAT.

Type locality. Phoenix Park, St. Ann's Parish, Jamaica.

Geogr. Distr. Island of Jamaica.

c. *Chilonycteris macleayi fuliginosa* Gray.

Chilonycteris fuliginosa Gray, Proc. Zoöl. Soc., 1843, p. 20.

Chilonycteris macleayi Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1872, p. 360. (Part.)

Chilonycteris macleayi fuliginosa Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, Append., p. 748. Zoöl. Ser.

DUSKY BAT.

Type locality. Port au Prince, Haiti.

Geogr. Distr. Island of Haiti.

1217. *Chilonycteris personata* Wagner.

Chilonycteris personata Wagn., Archiv f. Naturg., ix, 1843, p. 367. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. II, 1904, p. 641. Zoöl. Ser.

MASKED BAT.

Type locality. Matto Grosso, Brazil.

Geogr. Distr. Guatemala, Central America, to Brazil, South America.

1218. *Chilonycteris psilotis* Dobson.

Chilonycteris psilotis Dobson, Cat. Chirop. Brit. Mus., 1878, p. 451, pl. xxiii, fig. 2. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 642. Zoöl. Ser.

SHAGGY-EARED BAT.

Type locality. Unknown.

Geogr. Distr. Isthmus of Tehuantepec, Mexico. Range unknown.

1219. *Chilonycteris parnelli* (Gray).

Phyllodia parnellii Gray, Proc. Zoöl. Soc., 1843, p. 50.

Chilonycteris osburnii Tomes, Proc. Zoöl. Soc., 1861, p. 66, pl. xiii.

Chilonycteris parnelli Elliot, Mamm. Middle Amer. & W. Indies. F. C. M. Pub., IV, Pt. II, 1904, p. 642. Zoöl. Ser.

PARNELL'S BAT.

Type locality. Island of Jamaica

Geogr. Distr. Island of Jamaica.

1220. *Chilonycteris boothi* Gundlach.

Chilonycteris boothi Gundl., Monatsb. K. Preuss. Akad. Wiss. Berl., 1861, p. 154. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 642, fig. 130. Zoöl. Ser.

BOOTH'S BAT.

Type locality. Fundador, Island of Cuba.

Geogr. Distr. Island of Cuba.

1221. *Chilonycteris portoricensis* Miller.

Chilonycteris portoricensis Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 400. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 643. Zoöl. Ser.

PORTO RICAN BAT.

Type locality. Cave near Pueblo Viejo, Island of Porto Rico.

Geogr. Distr. Island of Porto Rico.

1222. *Chilonycteris rubiginosa* Wagner.

Chilonycteris rubiginosa Wagn., Archiv f. Naturg., ix, bd. I, 1843, p. 367. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 643. Zoöl. Ser.

DARK BROWN BAT.

Type locality. Caicara, Brazil.

Geogr. Distr. States of Vera Cruz and Michoacan, Mexico, south to Brazil.

1223. *Chilonycteris mexicana* Miller.

Chilonycteris mexicana Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 401. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 644. Zoöl. Ser.

MEXICAN BAT.

Type locality. San Blas, Territorio de Tepic, Mexico.

Geogr. Distr. Central and southern Mexico from State of Durango through Province of Tepic to State of Oaxaca in the south.

Genus 181. *Dermonotus*.

Dermonotus Gill, Proc. Biol. Soc. Wash., XIV, 1901, p. 177. Type *Pteronotus davyi* Gray.

Pteronotus Gray, Mag. Zoöl. Bot., II, 1838, p. 500. (nec Rafinesque.)

1224. *Dermonotus davyi* (Gray).

Pteronotus davyi Gray, Mag. Zoöl. Bot., II, 1838, p. 500.

Dermonotus davyi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 644, figs. 131, CVI. Zoöl. Ser.

DAVY'S BAT.

Type locality. Island of Trinidad.

Geogr. Distr. Islands of Dominica and Trinidad, south to Brazil.

a. *Dermonotus davyi fulvus* (Thomas).

Chilonycteris davyi fulvus Thomas, Ann. Mag. Nat. Hist., 6th Ser., X, 1892, p. 410.

Dermonotus davyi fulvus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 646. Zoöl. Ser.

LAS PEÑAS BAT.

Type locality. Las Peñas, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico. Range unknown.

Genus 182. *Mormops*.

Mormoops (*sic*) Leach, Trans. Linn. Soc., XIII, 1820, p. 76. Type *Mormoops* (*sic*) *blainvillii* Leach.

1225. *Mormops megalophylla* Peters.

Mormops blainvillii Peters, Abhandl. Akad. Berl., 1856, p. 289, pl. I, figs. 1-5. (nec Leach.)

Mormops megalophylla Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1864, p. 381. Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 418, fig. 92. Zoöl. Ser. *Id.* Mamm. Middle

Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 648, figs. 132, CVII. Zoöl. Ser.

BIG-EARED BAT.

Type locality. Mexico.

Geogr. Distr. Islands of Cuba and Jamaica; eastern and southern Mexico to Brazil.

a. Mormops megalophylla senicula (Rehn).

Mormoops! megalophylla senicula Rehn, Proc. Acad. Nat. Scien. Phil., 1902, p. 169.

Mormops megalophylla senicula Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 648. Zoöl. Ser.

ANTIQUE BAT.

Type locality. Fort Clark, Kinney County, Texas.

Geogr. Distr. Southern Texas, into northern and central Mexico, to State of Morelos.

1226. *Mormops blainvillii* (Leach).

Mormoops! blainvillii Leach, Trans. Linn. Soc., XIII, 1820, p. 77, pl. VII, figs. 1-4.

Mormops blainvillii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 649. Zoöl. Ser.

DE BLAINVILLE'S BAT.

Type locality. Island of Jamaica.

Geogr. Distr. Islands of Cuba and Jamaica.

a. Mormops blainvillii cinnamomea (Gundlach).

Lobostoma cinnamomeum Gundl., Wieg. Archiv f. Naturg., VI, 1840, p. 357.

Mormops blainvillii cinnamomea Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 649. Zoöl. Ser.

CINNAMON BAT.

Type locality. Cafetal San Antonio el Fundador, Cuba.

Geogr. Distr. Islands of Cuba, Haiti, and Mona.

Subfamily II. **Phyllostomatinae.**

Genus 183. **Lonchorina.**

Lonchorina Tomes, Proc. Zoöl. Soc., 1863, p. 81, pl. 22. Type

Lonchorina aurita Tomes.

1227. *Lonchorina aurita* Tomes.

Lonchorina aurita Tomes, Proc. Zool. Soc., 1863, p. 83. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 650, figs. 133, CVIII. Zool. Ser.

TOMES' LONG-EARED BAT.

Type locality. West Indies. Islands unknown.

Geogr. Distr. Unknown.

Genus 184. **Otopterus.**

Otopterus Lydekker, in Flow. & Lydek. Mamm. Living and Extinct, 1891, p. 673. Type *Macrotus waterhousii* Gray.

Macrotus Gray, Proc. Zool. Soc., 1843, p. 21. (nec Leach, Vespertil., 1816; nec Dejean, Coleopt., 1833; nec Reid, Marsupialia, 1836.)

1228. *Otopterus waterhousii* (Gray).

Macrotus waterhousii Gray, Proc. Zool. Soc., 1843, p. 21.

Otopterus waterhousii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 652, figs. 134, CIX. Zool. Ser.

WATERHOUSE'S LARGE-EARED BAT.

Type locality. Island of Haiti.

Geogr. Distr. Island of Haiti, West Indies.

*a. **Otopterus waterhousii jamaicensis** (Rehn).*

Macrotus waterhousii jamaicensis Rehn, Proc. Acad. Nat. Scien. Phil., 1904, p. 432.

JAMAICA LARGE-EARED BAT.

Type locality. Spanishtown, Jamaica.

Geogr. Distr. Island of Jamaica.

Genl. Char. Similar to *O. waterhousii*, but color duller, skull smaller and narrower, and weaker upper tooth row.

Color. Above Prout's brown, basal half of hairs white; beneath drab and wood brown, basal half of hairs white; ears and uropatagium Prout's brown; endopatagium, mesopatagium, and ectopatagium clove brown.

Measurements. Total length, 90.2-103; forearm, 52-54.5; thumb, 12-15; third finger, 88-94; tibia, 21.5-24; calcaneum, 9.2-12; foot, 12.2-16; tail, 27-36; ear, 23-29; tragus, 8-9.5. Skull; total length, 24.2-24.5; greatest zygomatic width, 12-12.2; interorbital width, 4.1-4.3; height of braincase, 9-9.1; width of braincase above roots of zygomata, 9.4-9.5; length of palate, 9.3-11; width of palate, 7.8-8; length of mandible, 16-16.5.

b. Otopterus waterhousii compressus (Rehn).

Macrotus waterhousii compressus Rehn, Proc. Acad. Nat. Scien. Phil., 1904, p. 434.

BAHAMA LONG-EARED BAT.

Type locality. Eleuthera, Bahamas.

Geogr. Distr. Eleuthera, Providence, Long Island, and Conch Sound, Andros, Bahamas.

Genl. Char. Rostrum narrower anteriorly than the interorbital region.

Color. Above Prout's brown, the hairs with more than basal half white; base of ears and along the internal margins whitish; beneath hairs white, basally ringed with pale drab, and tipped with silvery white; membranes sepia, ears and uropatagium paler.

Measurements. Total length, 94; forearm, 52; thumb, 13.5; third finger, 8.5; tibia, 21; calcaneum, 11; foot, 13; tail, 25; ear, 24; tragus, 8.5. Skull: total length, 25-25.1; greatest zygomatic width, 10.6-12; interorbital width, 4.2-4.5; height of braincase, 8-8.6; width of braincase, above roots of zygomata, 8.5-9.5; length of palate, 10.5-11; width of palate, 7.5-7.6; greatest length of mandible, 16.8-17.

c. Otopterus waterhousii minor (Gundlach).

Macrotus minor Gundl., Monatsb. K. Preuss. Akad. Wiss. Berl., 1864, p. 382.

CUBAN LARGE-EARED BAT.

Type locality. Cuba.

Geogr. Distr. Cuba and Isle of Pines.

Genl. Char. Size smaller than *O. waterhousii*, color darker.

Color. Two phases. *Brown phase.* Above seal brown, with over half of the basal portion white; between ears and posterior to the connecting membrane blackish; beneath, hairs white basally, then annulated with drab, and tipped with silvery; membranes blackish brown.

Red phase. Above and beneath dull ferruginous unicolor; patch between ears blackish; membranes black.

Measurements. Total length, 84.5-96.5; forearm, 49-54; thumb, 12.5-15; third finger, 81-88; tibia, 19-22.5; calcaneum, 8.5-12.3; foot, 10.5-15.5; tail, 20-37; ear, 21.5-30; tragus, 7.8-10. Skull: total length, 23.5-24.3; greatest zygomatic width, 11-12; interorbital width, 3.5-4.1; height of braincase, 8-8.8; width of braincase above roots of zygomata, 9-9.2; length of palate, 9.2-10; width of palate, 7-8; length of mandible, 15-16.

1229. *Otopterus californicus* (Baird).

Macrotus californicus Baird, Proc. Acad. Nat. Scien. Phil., 1858, p. 116.

Otopterus californicus Elliot, Syn. N. Am. Mamm., F. C. M. Pub., II, 1901, p. 420. Zoöl. Ser. *Id.* Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 653. Zoöl. Ser.

CALIFORNIA LARGE-EARED BAT.

Type locality. Old Fort Yuma, San Diego County, California.

Geogr. Distr. Southern California into Lower California, Mexico.

1230. *Otopterus mexicanus* (Saussure).

Macrotus mexicanus Sauss., Rev. Mag. Zool. 2me Sér., XII, 1860, p. 486.

Otopterus mexicanus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 653. Zoöl. Ser.

SAUSSURE'S LARGE-EARED BAT.

Type locality. District of Yautepec, near Cuautla, State of Morelos, Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, south to States of Mexico and Oaxaca, Mexico.

1231. **Otopterus bocourtianus* (Dobson).

Macrotus bocourtianus Dobson, Ann. Mag. Nat. Hist., 4th Ser., 1876, p. 436.

Macrotus mexicanus J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 179.

Otopterus bocourtianus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 654. Zoöl. Ser.

BOCOURT'S LARGE-EARED BAT.

Type locality. Vera Paz, Guatemala.

Geogr. Distr. Southern Mexico and Guatemala.

1232. *Otopterus bulleri* H. Allen.

Macrotus bulleri H. Allen, Proc. Am. Phil. Soc., xxviii, 1890, p. 73. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 654. Zoöl. Ser.

*Mr. J. A. G. Rehn in his Monograph of the genus *Otopterus*, Proc. Acad. Nat. Scien. Phil., 1904, p. 437 (erroneously called by him *Macrotus*), makes Dobson's species a synonym of *O. mexicanus*, and retains *O. bulleri* as a race of the last named. Dr. J. A. Allen, in a "Note on Mexican Species of *Otopterus*," Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 235, after a careful examination, decides that *O. bocourtianus* is a good species, and that *O. bulleri* should become a synonym of *O. mexicanus*. Here we have two diametrically opposed opinions entertained by two naturalists working independently of each other, and in view of the *impasse* thus created, it seems best to consider the two forms distinct species, as they have heretofore been by most investigators, especially as the specimens in this Museum appear to sustain that view of the case. Although not a matter of supreme importance, it will, however, probably require, after the decisions mentioned above, a consensus of opinions among mammalogists before the question at issue shall be satisfactorily settled.

BULLER'S LARGE-EARED BAT.

Type locality. Bolaños, State of Jalisco, Mexico.

Geogr. Distr. State of Guadalajara to States of Durango and Chihuahua, west to the Tres Marias Islands, State of Jalisco.

1233. Otopterus pygmæus (Rehn).

Macrotus pygmæus Rehn, Proc. Acad. Nat. Scien. Phil., 1904, p. 444.

LITTLE LARGE-EARED BAT.

Type locality. Izamal, Yucatan.

Geogr. Distr. Known only from the type locality.

Genl. Char. Size very small; skull with broad and flat interorbital region; teeth large; ear rounded, internal margin arcuate; tragus lanceolate, tip blunt, slight basal accessory longitudinal lobule on external margin; nose leaf high, lanceolate; width of nose pad twice that of its height; nostrils slightly crescentic; shallow median depression on the triangular pad on chin.

Color. Above mars brown, basally grayish white; beneath écru drab, unicolor; wing membrane clove brown.

Measurements. Total length, 79.3; forearm, 35.5; thumb, 10; third finger, 65.5; tibia, 14.9; calcaneum, 9; foot, 10.5; tail, 28; ear, 17.2; tragus, 7. Skull: greatest zygomatic width, 9.2; interorbital width, 4.2; height of braincase, 7.6; width of braincase above the roots of zygomata, 8; length of palate, 8; width of palate, 6.5; length of mandible, 12.8.

Genus 185. Vampyrus.

Vampyrus Leach, Trans. Linn. Soc., XIII, 1821, p. 79. Type *Vespertilio spectrum* Linnæus.

1234. Vampyrus spectrum (Linnæus).

Vespertilio spectrum Linn., Syst. Nat. I, 1758, p. 31; I, 1766, p. 46.

Vampyrus spectrum Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 656, fig. 135. Zool. Ser.

SPECTER BAT.

Type locality. South America.

Geogr. Distr. Guatemala, Central America to Brazil, South America; Island of Jamaica.

Genus 186. Chrotopterus.

Chrotopterus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1865, p. 505. Type *Vampyrus auritus* Peters.

1235. *Chrotopterus auritus* (Peters).

Vampyrus auritus Peters, Abhandl. K. Preuss. Akad. Wiss. Berl., 1856, p. 415, pl. II, figs. 1-5.

Chrotopterus auritus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 656, figs. 136, cx. Zoöl. Ser.

PETERS' VAMPIRE BAT.

Type locality. Mexico.

Geogr. Distr. Eastern Mexico into South America to southern Brazil.

Genus 187. **Tonatia.**

Tonatia Gray, in Griff., Cuv. Anim. Kingd., v, 1827, p. 71 (footnote).

Type Vampyrus bidens Spix.

Lophostoma D'Orbigny, Voy. Amér. Mérid., 1847, p. II.

1236. *Tonatia amblyotis* Wagner.

Phyllostoma amblyotis Wagn., Archiv f. Naturg., 1843, p. 365.

Tonatia amblyotis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 658, figs. 137, cxi. Zoöl. Ser.

ROUND-EARED BAT.

Type locality. Matto Grosso, Brazil.

Geogr. Distr. Bogava, Chiriqui, Panama to Brazil, South America.

Genus 188. **Micronycteris.**

Micronycteris Gray, Proc. Zoöl. Soc., 1866, p. 113. *Type Phyllorhina megalotis* Gray.

Schizostoma Gerv., Expéd. du Comt. de Casteln. Amér. Sud., Zool., 1855, p. 49. (nec Bronn, Mollusca, 1835.)

Vampyrella Reinh., Vidensk. Meddels. Naturh. Foren. Kjöbenh., 3 Aartis, IV, 1872, p. 111.

1237. *Micronycteris hirsutus* (Peters).

Schizostoma hirsutum Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1869, p. 396.

Micronycteris hirsutus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 661. Zoöl. Ser.

HAIRY BAT.

Type locality. Unknown.

Geogr. Distr. Pozo Azul, Costa Rica. Altitude, 200 meters. Range unknown.

1238. *Micronycteris megalotis* (Gray).

Phyllophora megalotis Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 257.

Phyllostoma elongata Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 257. (nec Geoffroy.)

Phyllostoma scrobiculatum Wagn., Schreb. Säugth., Suppl., v, 1855, p. 627.

Micronycteris megalotis Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 662, figs. 138, cxii. Zool. Ser.

LARGE-EARED VAMPIRE BAT.

Type locality. "Brazil."

Geogr. Distr. Mexico through Central America to Brazil, South America.

a. *Micronycteris megalotis mexicanus* Miller.

Micronycteris megalotis mexicanus Miller, Proc. Acad. Nat. Scien. Phil., 1898, p. 329. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 662. Zool. Ser.

MEXICAN VAMPIRE BAT.

Type locality. Plantinar, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, western Mexico. Range unknown.

1239. *Micronycteris microtis* Miller.

Micronycteris microtis Miller, Proc. Acad. Nat. Scien. Phil., 1898, p. 328. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 663. Zool. Ser.

SMALL-EARED NICARAGUAN BAT.

Type locality. Greytown, Nicaragua.

Geogr. Distr. Nicaragua, Central America. Range unknown.

Genus 189. *Glyphonycteris*.

Glyphonycteris Thomas, Ann. Mag. Nat. Hist., 6th Ser., xviii, 1896, p. 302. Type *Glyphonycteris sylvestris* Thomas.

1240. *Glyphonycteris sylvestris* Thomas.

Glyphonycteris sylvestris Thomas, Ann. Mag. Nat. Hist., 6th Ser., xviii, 1896, p. 303. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 664. Zool. Ser.

FOREST BAT.

Type locality. Imravallas, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

Genus 190. **Trachyops.**

Trachops (*sic*, misprint) Gray, Proc. Zool. Soc., 1847, p. 14. Type
Trachops! fuliginosus Gray = *Vampyrus cirrhosus* Spix.

1241. Trachyops cirrhosus (Spix).

Vampyrus cirrhosus Spix, Simiar. et Vespert. Bras., 1823, p. 64,
 pl. xxxvi, fig. iii.

Trachops (sic) fuliginosus Gray, Proc. Zool. Soc., 1847, p. 14.

Tylostoma mexicana Sauss., Rev. Mag. Zool., xii, 1860, p. 484.

Trachyops cirrhosus Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., iv, Pt. II, 1904, p. 665, figs. 139, cxiii. Zool.
 Ser.

FRINGED-FACED BAT.

Type locality. Brazil.

Geogr. Distr. Mexico to Brazil, South America.

Genus 191. **Phyllostoma.**

Phyllostomus Lacép., Tabl. Div. Sous-div. Ordres et Genres des
 Mamm., 1799, p. 16. Type *Vespertilio hastatus* Pallas.

Phyllostoma Geoff., Ann. Mus. Hist. Nat. Paris, xv, 1810, p. 174.

1242. Phyllostoma hastatum (Pallas).

Vespertilio hastatus Pall., Spicil. Zool., fasc. iii, 1767, p. 7.

Phyllostomus maximus Max., Reise Bras., II, 1820-21, p. 242.

Phyllostoma hastatum Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., iv, Pt. II, 1904, p. 666, figs. 140, cxiv. Zool.
 Ser.

SPEAR-NOSED BAT.

Type locality. Unknown.

Geogr. Distr. Panama, Central America to Brazil.

a. Phyllostoma hastatum panamensis (Allen).

Phyllostomus hastatus panamensis Allen, Bull. Am. Mus. Nat.
 Hist. N. Y., 1904, p. 233.

PANAMA SPEAR-NOSED BAT.

Type locality. Boqueron, Chiriqui, Panama.

Geogr. Distr. Panama. Range unknown.

Genl. Char. Similar to *P. hastatum*, but larger.

Color. Above dark seal brown, slightly varied with gray on
 shoulders, sides of neck, and front of head; beneath light brown
 washed with grayish; ears, nose-leaf, and membranes blackish brown.

Measurements. Forearm, 90; third finger metacarpal, 83; tibia, 34; foot, 24; calcaneum, 24. Skull: total length, 39; basal length, 30; zygomatic breadth, 21.2; mastoid breadth, 19; postorbital constriction, 7.5; width of rostrum at base of canines, 9.5; length of upper tooth row, 14.3.

Genus 192. **Hemiderma.**

Hemiderma Gerv., Expéd. du Comt. de Castelnau Amér. Sud., Mamm., Zool., 1855, p. 43. Type *Phyllostoma brevicaudum* Maximilian.
Carollia Gray, Mag. Zoöl. & Bot., 11, 1838, p. 488. (nec Cantraine, Mollusca, 1837.)

1243. Hemiderma perspicillatum (Linnæus).

Vespertilio perspicillatus Linn., Syst. Nat., 1, 1758, p. 31; 1, 1766, p. 47.

Phyllostoma brevicaudum Max., Schinz's Thierr., 1, 1821, p. 164.

Vampyrus soricinus Spix, Simiar. et Vespert. Bras., 1823, p. 66, pl. xxxvi.

Phyllostoma grayi Waterh., Voy. Beagle, Mamm., *1838, p. 20, pl. viii.

Phyllostoma lanceolatum Temm., Gray's List. Spec. Mamm. Brit. Mus., 1843, p. 20.

Carollia verrucata Gray, Voy. "Sulphur," Mamm., 1844, p. 20, pl. viii.

Phyllostoma bicolor Wagn., Schreb. Säugth., Suppl., 1, 1844, p. 400; v, 1855, p. 626.

Phyllostoma calcaratum Wagn., Abhandl. Akad. Münch., v, p. 168.

Phyllostoma brachyotum Burm., Thiere Brasil, 1854, p. 46.

Hemiderma brevicaudum Gerv., Expéd. du Comt. de Castelnau Amér. Sud., Zool., 1855, p. 43, pl. vii.

Carollia azteca Sauss., Rev. Mag. Zool., 2me Sér., xii, 1860, p. 480, pl. xx, figs. 1, 1a.

Rhinops minor Gray, Proc. Zoöl. Soc., 1866, p. 115.

Hemiderma perspicillatum Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. 11, 1904, p. 668, figs. 141, cxv. Zoöl. Ser.

SHORT-TAILED BAT.

Type locality. Unknown.

Geogr. Distr. Mexico to southern Brazil; West Indies.

*Sherborn, Ann. Mag. Nat. Hist., xx, 1897, p. 483.

1244. Hemiderma castaneum (H. Allen).

Carollia castanea H. Allen, Proc. Am. Phil. Soc., 1890, p. 19.

Hemiderma castaneum Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 670. Zool. Ser.

CHESTNUT-COLORED BAT.

Type locality. Costa Rica.

Geogr. Distr. Costa Rica, Central America.

Subfamily III. **Glossophaginæ.**

Genus 193. **Glossophaga.**

Glossophaga E. Geoff., Mém. Mus. Hist. Nat. Paris, IV, 1818, pp. 413, 418, pls. 17, 18. Type *Vespertilio soricinus* Pallas.

Phyllophora Gray, Mag. Zool. & Bot., II, 1838, p. 489.

Nicon Gray, Proc. Zool. Soc., 1847, p. 15.

1245. Glossophaga mutica Merriam.

Glossophaga mutica Merr., Proc. Biol. Soc. Wash., XII, 1898, p. 18.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 671. Zool. Ser.

MARIA MADRE ISLAND BAT.

Type locality. Maria Madre Island, Tres Marias Islands, State of Jalisco, Mexico.

Geogr. Distr. State of Jalisco, Mexico. (Tres Marias Islands.)

1246. Glossophaga soricina (Pallas):

Vespertilio soricinus Pall., Misc. Zool., 1766, p. 48, pl. IV, figs. 16-18, pl. V.

Glossophaga amplexicaudata E. Geoff., Mém. Mus. Hist. Nat. Paris, IV, 1818, p. 418, pl. XVIII.

Phyllophora nigra Gray, Voy. "Sulphur," Mamm., 1844, p. 18, pl. V, fig. 1.

Monophyllus leachii Gray, Voy. "Sulphur," Mamm., 1844, p. 18.

Nicon caudifer Gray, Ann. Mag. Nat. Hist., 1st Ser., XIX, 1847, p. 407.

Glossophaga soricina Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 672, figs. 142, CXVI. Zool. Ser.

SHREW-LIKE BAT.

Type locality. Unknown.

Geogr. Distr. Southern Mexico to Brazil and Bolivia.

a. Glossophaga soricina antillarum Rehn.

Glossophaga soricina antillarum Rehn, Proc. Acad. Nat. Scien. Phil., 1902, p. 37. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 672. Zoöl. Ser.

ANTILLES BAT.

Type locality. Port Antonio, Island of Jamaica.

Geogr. Distr. Island of Jamaica and the Bahamas.

Genus 194. **Chæronycteris.**

Chæronycteris Licht., Tschudi's Faun. Peruana, 1844, p. 70, pl. III.

Type Chæronycteris mexicana Tschudi.

1247. **Chæronycteris mexicana** Tschudi.

Chæronycteris mexicana Tschudi, Faun. Peruana, 1844, p. 72, pl. III, fig. 3. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 673, fig. CXVII. Zoöl. Ser.

TRES MARIAS ISLANDS BAT.

Type locality. Mexico.

Geogr. Distr. Tres Marias Islands, State of Jalisco, Mexico, to Guatemala.

1248. **Chæronycteris minor** Peters.

Chæronycteris minor Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1868, p. 366. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 674. Zoöl. Ser.

SMALL BAT.

Type locality. Surinam.

Geogr. Distr. Guatemala, Central America, to Brazil, South America.

1249. **Chæronycteris godmani** Thomas.

Chæronycteris godmani Thomas, Ann. Mag. Nat. Hist., 7th Ser., XI, 1903, p. 288. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 674. Zoöl. Ser.

GODMAN'S BAT.

Type locality. Guatemala.

Geogr. Distr. Unknown.

Genus 195. **Hylonycteris.**

Hylonycteris Thomas, Ann. Mag. Nat. Hist., 7th Ser., XI, 1903, p. 286.

Type Hylonycteris underwoodi Thomas.

1250. Hylonycteris underwoodi Thomas.

Hylonycteris underwoodi Thomas, Ann. Mag. Nat. Hist., 7th Ser., XI, 1903, p. 287. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 675. Zool. Ser.

UNDERWOOD'S BAT.

Type locality. Rancho Redondo, Costa Rica.

Geogr. Distr. Rancho Redondo and Tarbaca, Costa Rica Central America. Range unknown.

Genus 196. **Monophyllus.**

Monophyllus Leach, Trans. Linn. Soc., XIII, 1821, p. 75. Type *Monophyllus redmani* Leach.

1251. Monophyllus portoricensis Miller.

Monophyllus portoricensis Miller, Proc. Wash. Acad. Scien., II, 1900, p. 34. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 677, figs. 143, CXVIII. Zool. Ser.

PORTO RICO NOSE-LEAF BAT.

Type locality. Cave near Bayamon, Porto Rico.

Geogr. Distr. Island of Porto Rico.

1252. Monophyllus plethodon Miller.

Monophyllus plethodon Miller, Proc. Wash. Acad. Scien., II, 1900, p. 35. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 677. Zool. Ser.

BARBADOES NOSE-LEAF BAT.

Type locality. St. Michael's Parish, Barbadoes.

Geogr. Distr. Island of Barbadoes.

1253. Monophyllus luciae Miller.

Monophyllus luciae Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 411. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 678. Zool. Ser.

SANTA LUCIA NOSE-LEAF BAT.

Type locality. Island of Santa Lucia.

Geogr. Distr. Island of Santa Lucia.

1254. Monophyllus clinedaphus Miller.

Monophyllus clinedaphus Miller, Proc. Wash. Acad. Scien., II, 1900, p. 36. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 678. Zool. Ser.

MILLER'S NOSE-LEAF BAT.

Type locality. Unknown.*Geogr. Distr.* Unknown.1255. *Monophyllus cubanus* Miller.

Monophyllus cubanus Miller, Proc. Acad. Nat. Scien. Phil., 1902,
p. 410. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 678. Zool. Ser.

CUBAN NOSE-LEAF BAT.

Type locality. Baracoa, Island of Cuba.*Geogr. Distr.* Restricted to the Island of Cuba.1256. *Monophyllus redmani* Leach.

Monophyllus redmani Leach, Trans. Linn. Soc., XIII, 1821, p. 76.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. II, 1904, p. 679. Zool. Ser.

REDMAN'S NOSE-LEAF BAT.

Type locality. Island of Jamaica.*Geogr. Distr.* Island of Jamaica and possibly Island of Cuba.Genus 197. *Leptonycteris*.

Leptonycteris Lydekker, in Flow. & Lydek. Mamm. Living and
Extinct, 1891, p. 674. Type *Ischnoglossa nivalis* Saussure.

Ischnoglossa Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 492.
(nec Kraatz, Coleopt., 1856.)

1257. *Leptonycteris nivalis* (Saussure).

Ischnoglossa nivalis Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860,
p. 492, pl. xx, figs. 2, 2c.

Leptonycteris nivalis Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 679, figs. 144, cxix. Zool.
Ser.

SNOWY BAT.

Type locality. Snow line on the peak of Mount Orizaba, State of
Puebla, Mexico.

Geogr. Distr. Southern Mexico into Guatemala, Central America.Genus 198. *Anura*.

Anoura (sic) Gray, Mag. Zool. & Bot., II, 1838, p. 490. Type
Anoura geoffroyi Gray = *Glossophaga caudifera* E. Geoffroy.

Glossonycteris Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1868,
p. 365.

1258. Anura geoffroyi Gray.

Glossophaga caudifera E. Geoff., Mém. Mus. Hist. Nat. Paris, iv, 1818, p. 418, pls. xvii, xviii, fig. B.

Anoura! geoffroyi Gray, Mag. Zool. & Bot., ii, 1838, p. 490.

Charonycteris peruana Tschudi, Faun. Peruana, i, 1844, p. 71.

Anoura! ecaudata Sauss., Rev. Mag. Zool., 2me Sér., xii, 1860, p. 493. (nec Geoffroy.)

Glossonycteris lasiopyga Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1868, p. 368.

Anura geoffroyi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. ii, 1904, p. 682, figs. 145, cxx. Zool. Ser.

GEOFFROY'S BAT.

Type locality. Brazil.

Geogr. Distr. Mexico through Central America into Brazil and Peru.

Genus 199. Lichonycteris.

Lichonycteris Thomas, Ann. Mag. Nat. Hist., 6th Ser., xvi, 1895, p. 55. Type *Lichonycteris obscurus* Thomas.

1259. Lichonycteris obscurus Thomas.

Lichonycteris obscurus Thomas, Ann. Mag. Nat. Hist., 6th Ser., xvi, 1895, p. 56. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. ii, 1904, p. 683, fig. 146. Zool. Ser.

DUSKY BAT.

Type locality. Managua, Nicaragua.

Geogr. Distr. Nicaragua, Central America.

Genus 200. Phyllonycteris.

Phyllonycteris Gundl., Monatsb. K. Preuss. Akad. Wiss. Berl., 1860, p. 817. Type *Phyllonycteris poeyi* Gundlach.

1260. Phyllonycteris bombifrons Miller.

Phyllonycteris bombifrons Miller, Proc. Biol. Soc. Wash., xiii, 1899, p. 36. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. ii, 1904, p. 685. Zool. Ser.

BAYAMON BAT.

Type locality. Cave near Bayamon, Porto Rico.

Geogr. Distr. Island of Porto Rico.

1261. Phyllonycteris planifrons Miller.

Phyllonycteris planifrons Miller, Proc. Biol. Soc. Wash., xiii, 1899, p. 34. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv, Pt. ii, 1904, p. 685. Zool. Ser.

FLAT FOREHEAD BAHAMA BAT.

Type locality. Nassau, New Providence; Great Abaco, Bahamas.
Geogr. Distr. Bahama Islands.

1262. *Phyllonycteris sezekorni* Gundlach.

Phyllonycteris sezekorni Gundl., Monatsb. K. Preuss. Akad. Wiss.
 Berl., 1860, p. 818. Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., IV, Pt. II, 1904, p. 686. Zoöl. Ser.

SEZEKORN'S BAT.

Type locality. Cuba.

Geogr. Distr. Islands of Cuba and Jamaica.

1263. *Phyllonycteris poeyi* Gundlach.

Phyllonycteris poeyi Gundl., Monatsb. K. Preuss. Akad. Wiss.
 Berl., 1860, p. 817. Elliot, Mamm. Middle Amer. & W. In-
 dies, F. C. M. Pub., IV, Pt. II, 1904, p. 686, figs. 147, CXXI.
 Zoöl. Ser.

POEY'S BAT.

Type locality. Cuba.

Geogr. Distr. Island of Cuba.

Genus 201. **Rhithronycteris.**

Reithronycteris (*sic*) Miller, Proc. Acad. Nat. Scien. Phil., 1898,
 p. 333. Type *Reithronycteris aphylla* Miller.

1264. **Rhithronycteris aphylla** Miller.

Reithronycteris aphylla Miller, Proc. Acad. Nat. Scien. Phil., 1898,
 p. 334.

Rhithronycteris aphylla Elliot, Mamm. Middle Amer. & W. Indies,
 F. C. M. Pub., IV, Pt. II, 1904, p. 688, figs. 148, CXXII. Zoöl.
 Ser.

LEAFLESS OR BLUNT-NOSED BAT.

Type locality. Island of Jamaica.

Geogr. Distr. Restricted to the Island of Jamaica.

Genus 202. **Brachyphylla.**

Brachyphylla Gray, Proc. Zoöl. Soc., 1834, p. 122. Type *Brachy-
 phylla cavernarum* Gray.

1265. **Brachyphylla cavernarum** Gray.

Brachyphylla cavernarum Gray, Proc. Zoöl. Soc., 1834, p. 123.
 Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
 Pt. II, 1904, p. 689, fig. 149. Zoöl. Ser.

CAVERN NOSE-LEAF BAT.

Type locality. St. Vincent, Lesser Antilles.

Geogr. Distr. Islands of Cuba, Porto Rico, and St. Vincent.

1266. *Brachyphylla nana* Miller.

Brachyphylla nana Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 409. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 690, figs. 150, CXXIII. Zool. Ser.

DWARF NOSE-LEAF BAT.

Type locality. El Guama, Island of Cuba.

Geogr. Distr. Island of Cuba.

Subfamily IV. **Stenodermatinæ.**Genus 203. **Artibeus.**

Artibeus Leach, Trans. Linn. Soc., XIII, 1821, p. 75. Type *Artibeus jamaicensis* Leach.

Madatæus Leach, Trans. Linn. Soc., XIII, 1821, p. 81.

Pteroderma Gerv., Expéd. du Comte de Castelnau Amér. Sud, Zool., 1855, p. 34.

1267. *Artibeus coryi* J. A. Allen.

Artibeus coryi J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1890, p. 173. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 693. Zool. Ser.

CORY'S BAT.

Type locality. St. Andrew's Island, Caribbean Sea.

Geogr. Distr. Known only from the type locality.

1268. *Artibeus jamaicensis* Leach.

Artibeus jamaicensis Leach, Trans. Linn. Soc., XIII, 1821, p. 75. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 693, figs. 151, CXXIV. Zool. Ser.

Artibeus carpolegus Gosse, Nat. Sojourn in Jamaica, 1851, p. 271, pl. VI, fig. 5.

JAMAICA BAT.

Type locality. Island of Jamaica.

Geogr. Distr. Mexico to Brazil and Bolivia; West Indies.

1269. *Artibeus insularis* J. A. Allen.

Artibeus insularis J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 231.

ST. KITTS BAT.

Type locality. Island of St. Kitts, West Indies.

Geogr. Distr. Restricted to the Island of St. Kitts, W. I.

Genl. Char. Size large; coloration pale, no head stripes; nose-leaf large.

Color. Above pale reddish brown, beneath paler; membranes pale brown.

Measurements. Length of head and body, 82; nose-leaf, 13.5 x 8; forearm, 61; thumb, 15; third metacarpal, 58; third finger, 78; tibia, 25.5; foot, 16.5; ear from crown, 15. Skull: width across upper second molar, 13; width of rostrum at base of canines, 8.6; length of upper tooth row, 11; length of mandible, 19.6; height at coronoid, 8; length of lower tooth row; 11.

1270. *Artibeus intermedius* J. A. Allen.

Artibeus carpolegus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1891, p. 205. (nec Gosse.)

Artibeus intermedius J. A. Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1897, p. 33. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 694. Zool. Ser.

INTERMEDIATE BAT.

Type locality. San José, Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

1271. *Artibeus parvipes* Rehn.

Artibeus parvipes Rehn, Proc. Acad. Nat. Scien. Phil., 1902, p. 639.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 694. Zool. Ser.

SMALL-FOOTED BAT.

Type locality. Santiago de Cuba, Cuba.

Geogr. Distr. Island of Cuba.

1272. *Artibeus yucatanicus* Allen.

Artibeus yucatanicus Allen, Bull. Am. Mus. Nat. Hist. N. Y., 1904, p. 232.

YUCATAN BAT.

Type locality. Chichen Itza, Yucatan.

Geogr. Distr. Yucatan. Range unknown.

Genl. Char. Similar to *A. parvipes*.

Color. Similar to *A. parvipes*.

Measurements. "Forearm, 55; third metacarpal, 57; tibia, 24; foot, 14. Skull: total length, 27.5; zygomatic breadth, 17.5; mastoid breadth, 15; interorbital constriction, 7."

1273. Artibeus planirostris (Spix).

Phyllostoma planirostre Spix, Simiar. et Vespertil. Bras., 1823, p. 66, pl. xxxvi, fig. 1.

Phyllostoma obscurum Max., Beitr. Naturg. Bras., 11, 1826, p. 203.

Phyllostoma perspicillatum Burm., Thiere Bras., 1854, p. 45.

Artibeus fallax Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1865, p. 355.

Artibeus planirostris Elliot, Mamm. Middle Amer. & W. Indies. F. C. M. Pub., IV, Pt. II, 1904, p. 695, figs. 152, cxxv. Zool. Ser.

FLAT-NOSED BAT.

Type locality. Near Bahia, Brazil.

Geogr. Distr. State of Guerrero, Mexico, to Brazil; Island of Grenada.

1274. Artibeus watsoni Thomas.

Artibeus watsoni Thomas, Ann. Mag. Nat. Hist., 7th Ser., VII, 1901, p. 542. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 696. Zool. Ser.

WATSON'S BAT.

Type locality. Bogava, Chiriqui, Panama.

Geogr. Distr. Panama, Central America.

1275. Artibeus eva (Cope).

Dermanura eva Cope, Amer. Nat., xxiii, 1889, p. 130.

Artibeus eva Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 697. Zool. Ser.

ST. MARTIN'S BAT.

Type locality. Island of St. Martin, West Indies.

Geogr. Distr. Restricted to St. Martin's Island, W. I.

Genus 204. Uroderma.

Uroderma Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1865, p. 588. (Footnote.) Type *Uroderma bilobatum* Peters.

1276. Uroderma convexum Lyon.

Uroderma convexum Lyon, Proc. Biol. Soc. Wash., xv, 1902, p. 83.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 697, figs. 153, cxxvi. Zool. Ser.

COLON BAT.

Type locality. Colon, Panama.

Geogr. Distr. Known only from the type locality.

Genus 205. **Dermanura.**

Dermanura Gerv., Expéd. du Comte de Castelnau Amér. Sud, Zool., Mamm., 1855, p. 36. Type *Dermanura cinereum* Gervais.

1277. Dermanura phæotis Miller.

Dermanura phæotis Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 405. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 699. Zool. Ser.

DARK-EARED BAT.

Type locality. Chichen Itza, Yucatan.

Geogr. Distr. Yucatan. Range unknown.

1278. Dermanura cinereum Gervais.

Dermanura cinereum Gerv., Expéd. du Comte de Castelnau Amér. Sud, Zool., Mamm., 1855, p. 36, pl. VIII, fig. 4; pl. IX, figs. 4, 4a; pl. XI, fig. 3. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 699, figs. 154, CXXVII (D. 4—vittata). Zool. Ser.

Stenoderma tolteca Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 427, pl. XV, fig. 4.

CINEREOUS BAT.

Type locality. Brazil.

Geogr. Distr. Mexico to Brazil.

Genus 206. **Vampyrops.**

Vampyrops Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1865, p. 356. Type *Phyllostoma lineatum* E. Geoffroy.

Vampyressa Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 270.

Vampyriscus Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 270.

Vampyrodes Thomas, Ann. Mag. Nat. Hist., 7th Ser., v, 1900, p. 270.

1279. Vampyrops lineatus (E. Geoffroy).

Phyllostoma lineatum E. Geoff., Ann. Mus. Hist. Nat. Paris, xv, 1810, p. 180.

Vampyrops lineatus Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 702. Zool. Ser.

WHITE-STRIPED BAT.

Type locality. Paraguay.

Geogr. Distr. Mexico to Paraguay.

1280. *Vampyrops vittatus* (Peters).

Artibeus vittatus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl.
1859, p. 225.

Vampyrops vittatus Elliot, Mamm. Middle Amer. & W. Indies
F. C. M. Pub., IV, Pt. II, 1904, p. 704, fig. CXXVIII. Zoöl. Ser.

PETERS' WHITE-STRIPED BAT.

Type locality. Puerto Cabello, Venezuela.

Geogr. Distr. Costa Rica, Central America, to northern South America.

1281. *Vampyrops helleri* Peters.

Vampyrops helleri Peters, Monatsb. K. Preuss. Akad. Wiss. Berl.,
1866, p. 392. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 703, fig. 155. Zoöl. Ser.

HELLER'S WHITE-STRIPED BAT.

Type locality. Mexico.

Geogr. Distr. Mexico to South America; Venezuela; Chiriqui, Panama, and San Miguel Island, Bay of Panama.

Genus 207. ***Stenoderma.**

Stenoderma E. Geoff., Descr. l'Égypte, Mamm., II, 1818, p. 114.

Type Stenoderma rufum E. Geoffroy.

Artibeus Gray, Mag. Zoöl. & Bot., II, 1838, p. 491.

Histiops Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1869,
p. 339.

Artibeus Gerv., Expéd. du Comte de Castelnau Amér. Sud, Zool.,
Mamm., 1855, p. 34. (nec Leach.)

Peltorhinus Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1876,
p. 433.

Subgenus A. **Stenoderma.**

1282. *Stenoderma montserratense* Thomas.

Stenoderma montserratense Thomas, Proc. Zoöl. Soc., 1894, p. 133.
Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,
Pt. II, 1904, p. 705. Zoöl. Ser.

MONTSERRAT BAT.

Type locality. Island of Montserrat, West Indies.

Geogr. Distr. Known only from the type locality.

1283. *Stenoderma nicholli* Thomas.

Stenoderma nicholli Thomas, Ann. Mag. Nat. Hist., 6th Ser., VII,
1891, p. 529. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 706. Zoöl. Ser.

*Misprinted *Sternoderma* in the Mamm. Middle Amer. & W. Indies.

NICHOLLS' BAT.

Type locality. Island of Dominica, West Indies.

Geogr. Distr. Known only from the type locality.

1284. *Stenoderma luciae* Miller.

Stenoderma luciae Miller, Proc. Acad. Nat. Scien. Phil., 1902, p. 407.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 706, fig. CXXIX. Zool. Ser.

SANTA LUCIA BAT.

Type locality. Island of Santa Lucia, West Indies.

Geogr. Distr. Restricted to the Island of Santa Lucia, W. I.

Subgenus B. *Peltorhinus*.1285. *Stenoderma achradophilum* (Gosse).

Artibeus achradophilus Gosse, Nat. Sojourn in Jamaica, 1851,
p. 271, pl. VI, fig. 4.

Artibeus sulphureus Gosse, Nat. Sojourn in Jamaica, 1851, p. 271,
pl. VI, fig. 5.

Artibeus jamaicensis Gosse, Nat. Sojourn in Jamaica, 1851, p. 271,
pl. VI, fig. 3.

Artibeus flavescens Gray, Proc. Zool. Soc., 1866, p. 117.

Stenoderma achradophilum Elliot, Mamm. Middle Amer. & W. In-
dies, F. C. M. Pub., IV, Pt. II, 1904, p. 707, fig. 156. Zool. Ser.

FRUIT-LOVING BAT.

Type locality. Content, Island of Jamaica.

Geogr. Distr. Islands of Cuba and Jamaica.

Genus 208. *Phyllops*.

Phyllops Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1865, p. 356.

Type *Arctibeus (sic) falcatus* Gray.

1286. *Phyllops falcatus* (Gray).

Arctibeus? falcatus Gray, Ann. Mag. Nat. Hist., IV, 1839, p. 1.

Phyllostoma albomaculatum Gundl., Monatsb. K. Preuss. Akad.
Wiss. Berl., 1861, p. 155.

Phyllops falcatum Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 708, fig. 157. Zool. Ser.

FALCATE BAT.

Type locality. Cuba.

Geogr. Distr. Island of Cuba.

Genus 209. **Ectophylla.**

Ectophylla H. Allen, Proc. U. S. Nat. Mus., xv, 1892, p. 441, 2 figs. in text. Type *Ectophylla alba* H. Allen.

1287. **Ectophylla alba** H. Allen.

Ectophylla alba H. Allen, Proc. U. S. Nat. Mus., xv, 1892, p. 442.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., iv,

Pt. II, 1904, p. 710, fig. cxxx. Zool. Ser.

WHITE HONDURAS BAT.

Type locality. Segovia River, Honduras.

Geogr. Distr. Honduras, Central America. Range unknown.

Genus 210. **Chiroderma.**

Chiroderma Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1860, p. 747. Type *Chiroderma villosum* Peters.

1288. **Chiroderma salvini** Dobson.

Chiroderma salvini Dobson, Cat. Chiropt. Brit. Mus., 1878, p. 532,

pl. 29, figs. 3, 3a. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., iv, Pt. II, 1904, p. 710, figs. 158, cxxxI. Zool.

Ser.

SALVIN'S NOSE-LEAFED BAT.

Type locality. Costa Rica.

Geogr. Distr. Costa Rica, Central America. Range unknown.

Genus 211. **Pygoderma.**

Pygoderma Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1863, p. 83; 1865, p. 357. Type *Phyllostoma bilabiatum* Wagner.

1289. **Pygoderma bilabiatum** (Wagner).

Phyllostoma bilabiatum Wagn., Archiv f. Naturg., ix, 1843, bd. 1, p. 366.

Artibeus (sic) leucomus Gray, Proc. Zool. Soc., 1848, p. 57.

Stenoderma (Pygoderma) microdon Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1863, p. 83.

Pygoderma bilabiatum Elliot, Mamm. Middle Amer. & W. Indies

F. C. M. Pub., iv, Pt. II, 1904, p. 712, figs. 159, cxxxII. Zool. Ser.

YPANEMA NOSE-LEAF BAT.

Type locality. Ypanema, São Paulo, Brazil.

Geogr. Distr. Mexico to Brazil.

Genus 212. **Sturnira.**

Sturnira Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 257. Type

Sturnira spectrum Gray = *Phyllostoma lilium* E. Geoffroy.

Nyctiplanus Gray, Proc. Zool. Soc., 1849, p. 57.

1290. **Sturnira lilium** (E. Geoffroy).

Phyllostoma lilium E. Geoff., Ann. Mus. Hist. Nat. Paris, xv, 1810, p. 181.

Phyllostoma spiculatus Illig., Licht. Verz. der Doubl., 1823, p. 3.

Sturnira spectrum Gray, Ann. Mag. Nat. Hist., 1st Ser., 1842, p. 257.

Phyllostoma excisum Wagn., Archiv f. Naturg., 1842, p. 358.

Phyllostoma albescens Wagn., Abhandl. Münch. Akad., v, p. 178.

Phyllostoma fumarium Wagn., Abhandl. Münch. Akad., v, p. 178.

Phyllostoma erythromos Tschudi, Faun. Peruana, 1844-46, p. 64 pl. 1.

Phyllostoma oporaphilum Tschudi, Faun. Peruana, 1844-46, p. 64, pl. 11.

Stenoderma chilense Gerv., Gay's Hist. Chile, Mamm., 1847, p. 30, pl. 1, fig. 1.

Nyctiplanus rotundatus Gray, Proc. Zool. Soc., 1848, p. 57.

Phyllostoma chrysocomus Wagn., Schreb. Säugth., Suppl., v, 1855, p. 635.

Sturnira lilium Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 715, figs. 160, cxxxiii. Zool. Ser.

GEOFFROY'S BAT.

Type locality. Paraguay.

Geogr. Distr. States of Jalisco and Vera Cruz, Mexico, to Paraguay and Chili. West Indies.

Subfamily V. **Centurioninæ.**Genus 213. **Centurio.**

Centurio Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 259. Type

Centurio senex Gray.

Trichocorynes! H. Allen, Proc. Acad. Nat. Scien. Phil., 1861, p. 359.

1291. **Centurio senex** Gray.

Centurio senex Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 259. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 717, figs. 161, cxxxiv, cxxxv. Zool. Ser.

Centurio flavogularis Licht. & Peters, Monatsb. K. Preuss. Akad. Wiss. Berl., 1854, p. 335.

Centurio mexicanus Sauss., Rev. Mag. Zool., 2me Sér., XII, 1860, p. 381.

Centurio mcmurtrii H. Allen, Proc. Acad. Nat. Scien. Phil., 1861, p. 360. (Adult male.)

Centurio minor Ward, Amer. Nat., xxv, 1891, p. 750. (Female.)

WRINKLED-FACE BAT.

Type locality. Unknown.

Geogr. Distr. Eastern Mexico, State of Vera Cruz to Costa Rica, Central America. Exact range unknown.

Subfamily VI. **Desmodontinæ.**

Genus 214. * **Desmodon.**

Desmodus (sic) Max., Abbild. Naturg. Bras., 5te Lief., 1824, pl. and text. Type *Desmodus rufus* Maximilian = *Phyllostoma rotundum* E. Geoffroy.

1292. **Desmodon rotundum** (E. Geoffroy).

Phyllostoma rotundum E. Geoffroy, Ann. Mus. Hist. Nat. Paris, 1810, p. 181.

Rhinolophus ecaudatus Schinz, Cuv. Thiere., I, 1821, p. 168.

Desmodus rufus Max., Beitr. Naturg. Bras., 1826, p. 233.

Edostoma cinerea D'Orbigny, Voy. l'Amér. Mérid., IV, 1847, p. 11, pl. VIII.

Desmodus d'orbignyi Waterh., Voy. Beagle, Mamm., 1838, p. 1, pls. 5, xxxv, fig. 1.

Desmodus murinus Wagn., Schreb. Säugth., Suppl., I, 1847, p. 377.

Desmodus fuscus Lund, Burm. Thiere Bras., 1854, p. 57.

Desmodus rotundus Elliot, Mamm. Middle Amer. & W. Indies, F.C.M. Pub., IV, Pt. II, 1904, p. 718, figs. 162, CXXXVI. Zool. Ser.

RUFIOUS VAMPIRE BAT.

Type locality. Paraguay.

Geogr. Distr. Southern Mexico south to Chili and Paraguay.

Genus 215. **Diphylla.**

Diphylla Spix, Simiar. et Vespert. Bras., 1823, p. 68. Type *Diphylla ecaudata* Spix.

Hæmatonycteris H. Allen, Proc. U. S. Nat. Mus., XVIII, 1896, p. 777. Type *Diphylla ecaudata* Dobson. (nec Spix?)

* δεσμόζ, οδούζ = DESMODON Lat. nec *Desmodus*.

1293. *Diphylla ecaudata* Spix.

Diphylla ecaudata Spix, Simiar. et Vespert. Bras., 1823, p. 68,
pl. xxxvi. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.
Pub., IV, Pt. II, 1904, p. 720, fig. 163. Zoöl. Ser.

TAILLESS BAT.

Type locality. Brazil.

Geogr. Distr. Southern Mexico? Brazil.

1294. *Diphylla centralis* Thomas.

Diphylla centralis Thomas, Ann. Mag. Nat. Hist., 7th Ser., XI,
1903, p. 378. Elliot, Mamm. Middle Amer. & W. Indies,
F. C. M. Pub., IV, Pt. II, 1904, p. 721. Zoöl. Ser.

BOQUETE TAILLESS BAT.

Type locality. Boquete, Chiriqui, Panama.

Geogr. Distr. Panama into South America, possibly to Brazil.

Order XI. **Primates. Primates.**

Sub-order Anthropoidea.

Family I. **Callitrichidæ. Marmosets.**

Genus 216. **Ædipomidas.**

- Ædipomidas** Reichenb. Vollständ. Naturgesch. Affen, 1862, pp. 5-6, pl. II, figs. 18-20. Type *Simia ædipus* Linnæus.
Midas E. Geoff., Ann. Mus. Hist. Nat. Paris, XIX, 1812, p. 120. (nec Latreille, 1796.)
Marikina Reich., Vollständ. Naturgesch. Affen, 1862, pp. 7-9, pl. II, figs. 25-31.
Ædipus Gray, Cat. Monkeys, Lemurs and Fruit-eating Bats Brit. Mus., 1870, p. 65. (nec Tschudi, 1838.)
Seniocebus Gray, Cat. Monkeys, Lemurs and Fruit-eating Bats Brit. Mus., 1870, p. 68.

1295. **Ædipomidas geoffroyi** (Pucheran).

- Hapale geoffroyi* Pucheran, Rev. Zool., 1845, p. 336.
Hapale ædipus Sclat., Nat. Hist. Rev., 1861, p. 509. (nec Linn.)
Midas geoffroyi Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 724, figs. 164, CXXXVII. Zool. Ser.
GEOFFROY'S TITI MONKEY.
Type locality. Panama.
Geogr. Distr. Panama to Colombia.

Family II. **Cebidæ. Prehensile-tailed Monkeys.**

Subfamily I. **Alouattinæ.**

Genus 217. **Alouatta. Howling Monkeys.**

- Alouatta** Lacépède, Tabl. Div. Sous-div. Ordres et Genres Mamm., 1799, p. 4. Type *Simia belzebul* Linnæus.
Mycetes Illig., Prodr. Syst. Mamm. et Av., 1811, p. 70.

1296. **Alouatta villosa** (Gray).
Mycetes villosus Gray, Ann. Mag. Nat. Hist., 1st Ser., XVI, 1845, p. 220.
Alouatta villosa Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 726, pl. LXVII. Zool. Ser.

VILLOUS HOWLER. *Mono* in Guatemala.

Type locality. Brazil.

Geogr. Distr. Guatemala and Honduras, Central America, into South America.

1297. *Alouatta palliata* (Gray).

Mycetes palliatus Gray, Proc. Zool. Soc., 1848, p. 138, pl. vi.

Alouatta palliata Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 726, fig. cxxxviii. Zool. Ser.

MANTLED HOWLER. *Congo* in Costa Rica; *Congo, o'Mono Chillon* in Nicaragua.

Type locality. Caracas, Venezuela.

Geogr. Distr. Nicaragua to South America.

a. Alouatta palliata mexicana Merriam.

Alouatta palliata mexicana Merr., Proc. Biol. Soc. Wash., xv,

1902, p. 67. Elliot, Mamm. Middle Amer. & W. Indies,

F. C. M. Pub., IV, Pt. II, 1904, p. 727. Zool. Ser.

MEXICAN HOWLER.

Type locality. Minatitlan, State of Vera Cruz, Mexico.

Geogr. Distr. Eastern Mexico.

b. Alouatta palliata coibensis Thomas.

Alouatta palliata coibensis Thomas, Novit. Zool., ix, 1902, p. 135.

Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV,

Pt. II, 1904, p. 727. Zool. Ser.

ISLAND OF COIBA HOWLER.

Type locality. Coiba Island, off west coast of Panama.

Geogr. Distr. Restricted to Coiba Island.

Subfamily II. **Aotinae. Squirrel Monkeys.**

Genus 218. **Aotus.**

Aotes Humboldt, Rec. d'obs. Zool. et Anat. Comp., I, 1811, pp.

306-311, 358, (for *Aotus*) pl. xxviii. Type *Simia trivirgata* Humboldt.

Nyctipithecus Spix, Simiar. et Vespert. Bras., 1823, p. 25.

1298. *Aotus rufipes* (Sclater).

Nyctipithecus rufipes Sclater, Proc. Zool. Soc., 1872, p. 3.

Aotus rufipes Elliot, Mamm. Middle Amer. & W. Indies, F. C. M.

Pub., IV, Pt. II, 1904, p. 729, figs. 165 (*Aotus azara*), cxxxix.

Zool. Ser.

RUFIOUS-FOOT SQUIRREL MONKEY.

Type locality. San Juan del Norte, Nicaragua.

Geogr. Distr. Nicaragua. Range unknown.

1299. *Aotus vociferans* (Spix).

Nyctipithecus vociferans Spix, Simiar. et Vespert. Bras., 1823, p. 25, pl. 19.

Aotus vociferans Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 729. Zoöl. Ser.

NOISY SQUIRREL MONKEY. *Mico-dormilon* in Colombia.

Type locality. Tabatinga, Upper Amazon, Brazil.

Geogr. Distr. Costa Rica, Central America to Brazil.

Genus 219. *Saimiri*.

Saimiri Voigt, Cuvier's Thierreich, I, 1831, p. 95. Type *Simia sciurea* Linnæus.

1300. *Saimiri ærstedii* (Reinhardt).

Chrysothrix ærstedii Reinh., Vidensk. Medd. Nat. For. Kjöbenh., 1872, p. 157, pl. III.

Saimiris entomophaga Sclat., Proc. Zoöl. Soc., 1872, p. 3. (nec D'Orbigny.)

Chrysothrix sciurea Sclat., Nat. Hist. Rev., 1861, p. 510. (nec Linn.)

Saimiri ærstedii Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 731, figs. 166, CXL. Zoöl. Ser.

ÆRSTED'S TITI MONKEY. *Titi*, *Cuistiti* in Costa Rica.

Type locality. Cartago, Costa Rica.

Geogr. Distr. Guatemala to Panama, Central America.

Subfamily III. *Cebinae*.Genus 220. *Ateles*. Spider Monkeys.

Ateles E. Geoff., Ann. Mus. Hist. Nat. Paris, VII, 1806, p. 262. Type *Simia paniscus* Linnæus.

1301. *Ateles vellerosus* Gray.

Ateles vellerosus Gray, Proc. Zoöl. Soc., 1865, p. 733. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 733, fig. CXL, pl. LXVIII. Zoöl. Ser.

Ateles fuliginosus Schleg., Mus. Pays-Bas, III, 1876, p. 179. (nec Kuhl.)

Ateles pan. Schleg., Mus. Pays-Bas, III, 1876, p. 180.

MEXICAN SPIDER MONKEY.

Type locality. Unknown.

Geogr. Distr. Volcano of Orizaba, State of Vera Cruz, south to Guatemala, Central America.

1302. *Ateles geoffroyi* Kuhl.

Ateles geoffroyi Kuhl, Beit. Zool., 1820, p. 26. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 733. Zool. Ser.

Ateles melanochir Desm., Mamm., 1820, p. 76.

Eriodes frontatus Gray, Ann. Mag. Nat. Hist., 1st Ser., x, 1842, p. 256.

Ateles variegatus Frantz., Archiv f. Naturg., xxxv, 1, 1869, p. 257. (nec Wagn.)

Ateles hybridus Gray, Cat. Monkeys, Lemurs and Fruit-eating Bats Brit. Mus., 1870, p. 43.

Ateles ornatus Gray, Cat. Monkeys, Lemurs and Fruit-eating Bats Brit. Mus., 1870, p. 44.

Ateles albifrons Gray, Cat. Monkeys, Lemurs and Fruit-eating Bats Brit. Mus., 1870, p. 44.

GEOFFROY'S SPIDER MONKEY. *Mono Colorado* in Costa Rica.

Type locality. Unknown.

Geogr. Distr. Nicaragua, Central America, to Colombia, South America.

1303. *Ateles rufiventris* Sclater.

Ateles rufiventris Sclat., Proc. Zool. Soc., 1872, p. 688, pl. LVII. juv. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 734. Zool. Ser.

FULVOUS-BELLIED SPIDER MONKEY.

Type locality. Colon, Atrato River, northern Colombia.

Geogr. Distr. Panama? into Colombia, South America.

1304. *Ateles ater* F. Cuvier.

Ateles ater F. Cuv., Hist. Nat. Mamm., 2d ed., III, 1823, Livr. xxxix, p. 107, pl. 56. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 734. Zool. Ser.

BLACK SPIDER MONKEY.

Type locality. Cayenne, French Guiana.

Geogr. Distr. Panama to eastern Peru.

1305. *Ateles grisescens* Gray.

Ateles grisescens Gray, Proc. Zool. Soc., 1865, p. 732. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 734. Zool. Ser.

GRIZZLED SPIDER MONKEY.

Type locality. Unknown.*Geogr. Distr.* Central America.Genus 221. **Cebus.****Cebus** Erxl., Syst. Règn. Anim., 1777, p. 44. Type —?**1306. Cebus hypoleucus** (Humboldt).*Simia hypoleuca* Humb., Recueil, Obs. Zool. Anat. Comp., 1, 1811, p. 337.*Cebus hypoleucus* Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 736, figs. 167, CLXII. Zoöl. Ser.WHITE-THROATED CAPUCHIN. *Mono carablanca.**Type locality.* Rio Sinu, Bolívar, Colombia.*Geogr. Distr.* Nicaragua to Colombia.**1307. Cebus imitator** Thomas.*Cebus imitator* Thomas, Ann. Mag. Nat. Hist., 7th Ser., XI, 1903, p. 376. Elliot, Mamm. Middle Amer. & W. Indies, F. C. M. Pub., IV, Pt. II, 1904, p. 737. Zoöl. Ser.

ALLIED SAPAJOU.

Type locality. Boquete, Chiriqui, Panama. Altitude, 4,000 feet.*Geogr. Distr.* Panama, Central America.Family III. **Cercopithecidae.**Subfamily I. **Cercopithecinae.**Genus 222. **Cercopithecus.****Cercopithecus** Gronovius, Zooph. Gron., 1, 1763, p. 5. Type —?**1308. *Cercopithecus callitrichus** Is. Geoffroy.*Le Callitriche* F. Cuv., Mamm., 1, 1824, pl. 21.*Cercopithecus callitrichus* Is. Geoffroy, Cat. Mamm., 1851, p. 23.

Schleg., Mus. Pays-Bas, Simiæ, 1876, p. 73.

*Not having been able to obtain any reliable information regarding this species in the West Indies, it was omitted from the work on the mammals of Middle America and the West Indies. I have lately been informed by Mr. A. H. Clark of Boston that it is common in certain districts of Barbadoes, and also in St. Kitts, and is, therefore, included in this list. I have heard that another species of monkey from the Old World has been introduced into the Island of Grenada, but although I have tried to obtain some information regarding it, and written to persons on the Island, yet I am unable to give its name, or learn anything about it.

GREEN MONKEY.

Type locality. Senegambia, West Africa.

Geogr. Distr. West Africa, Senegambia to River Niger. Introduced into the Islands of St. Kitts and Barbadoes, West Indies.

Color. Upper parts of body and sides yellowish green, the hairs ringed with black and yellow; under parts, inner side of arms and legs, throat and neck yellowish white; outer side of arms and legs, and also hands and feet gray; tail like the body, with a long yellow pencil; under side paler; whiskers, eyebrows, and anal region yellow; face, ears, and palms of hands and soles of feet black.

Measurements. Total length, 1066.8; tail, 673.

APPENDIX.

THE FOLLOWING DESCRIPTIONS WERE PUBLISHED TOO LATE
TO BE INCLUDED IN THEIR PROPER PLACES IN
THE BODY OF THE WORK.

Order VI. **Rodentia.**

Family I. **Sciuridæ.**

Subfamily I. **Sciurinaë.**

Genus 51. **Tamias.**

173a. *Tamias amœnus operarius* (Merriam).

Eutamias amœnus operarius Merr., Proc. Biol. Soc. Wash., XVIII, 1905, p. 164.

BUSY CHIPMUNK.

Type locality. Gold Hill, Colorado. Altitude, 7,400 feet.

Genl. Char. "Similar to *amœnus*, but lacking the black on posterior two-thirds of ear; lower dark cheek stripe and stripe between eye and ear usually narrower; tail longer, the upper side more strongly fulvous; black beneath less marked; submarginal black band beneath narrower; median dorsal stripe blacker and more pronounced on back of neck and occiput; outer lateral stripe more pronounced." (Merriam, l. c.)

Fall and Post-breeding Pelage. Middle pair of light dorsal stripes and rump gray; in post-breeding pelage, the dorsal stripes are less gray, the rump more olivaceous, and the shoulders and anterior part of back more fulvous. "Some specimens have the under parts suffused with yellowish and fulvous, as in the larger *luteiventris*."

Measurements. Total length, 200; tail vertebræ, 93; hind foot, 31.

177aa. *Tamias hopiensis* (Merriam).

Eutamias hopiensis Merr., Proc. Biol. Soc. Wash., XVIII, 1905, p. 165.

HOPi CHIPMUNK.

Type locality. Keam Cañon, Painted Desert, Arizona.

Genl. Char. Size medium; general color pale golden fulvous; head and rump pale.

Color. Head above pale buffy gray; rump pale grizzled ochraceous gray; outer dorsal stripes white; inner light stripes grizzled white and gray, sometimes tinged with buffy; dark dorsal stripes in winter bright fulvous, in summer with black centers; tail deep rufous, narrow black submarginal band beneath.

Measurements. Total length, 224; tail vertebræ, 101; hind foot, 33.5.

Family IV. **Muridæ.**Subfamily II. **Cricetinaë.**Genus 60. **Peromyscus.****278aa.** *Peromyscus leucopus fusus* Bangs.

Peromyscus leucopus fusus Bangs, N. Eng. Zool. Club, IV, 1905,
p. 13.

MARTHA'S VINEYARD ISLAND DEER MOUSE.

Type locality. West Tisbury, Martha's Vineyard Island, Massachusetts.

Geogr. Distr. Martha's Vineyard Island, Massachusetts.

Genl. Char. Similar to *P. l. noveboracensis*, but larger.

Color. *Summer Pelage.* Above rich brown, dorsal region darkest; beneath white; hands and feet white; ears dusky; tail blackish above, white below.

Measurements. Total length, 187-203; tail vertebræ, 85-96; hind foot, 21.5-23.5. Skull: basal length, 25.8; occipito-nasal length, 28.4; length of nasals, 10.6; palatal length, 11.4; zygomatic width, 14.6; interorbital width, 4.4; length of mandible, 15.8; of upper molar series, 3.8; of lower molar series, 3.6.

278aaa. *Peromyscus leucopus ammodytes* Bangs.

Peromyscus leucopus ammodytes Bangs, Proc. N. Eng. Zool. Club,
IV, 1905, p. 14.

MONOMOY ISLAND DEER MOUSE.

Type locality. Monomoy Island, Massachusetts.

Geogr. Distr. Known only from the type locality.

Genl. Char. Smaller and paler than *P. l. noveboracensis*.

Color. Above pale gray, beneath white; ill-defined dorsal stripe sometimes present; hands and feet white; tail pale gray above, white below, ears pale drab.

Measurements. Total length, 151.5-188; tail vertebræ, 67-88; hind foot, 18.8-21. Skull: basal length, 23.8; occipito-nasal length, 26; length of nasals, 10; palatal length, 10.4; zygomatic width, 13.6; interorbital width, 4; length of mandible, 14.2; length of upper molar series, 3.4; of lower molar series, 3.

Family XII. **Leporidae.**Genus III. **Lepus.**Subgenus F. **Macrotolagus.**

881a. **Lepus callotis flavigularis* Wagner.

Lepus callotis var. *flavigularis* Wagn., Schreb. Säugth., Suppl.,
IV, 1844, p. 107.

YELLOW-THROATED JACK RABBIT.

Type locality. San Mateo del Mar, Tehuantepec.

Geogr. Distr. Southern Mexico.

Genl. Char. Similar to *L. callotis*, gray of the rump pale, and very sharply defined from the black and yellow of the dorsal tract; throat patch greatly elongated, much more extensive than that of *L. callotis*, and a pale straw yellow; fore and hind legs iron gray.

Measurements. Total length, 525; tail vertebrae, 70; hind foot, 135; ear, 122.

*A fairly marked subspecies.

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FOR THE

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THE MAMMALS OF MIDDLE AMERICA, WEST INDIES &c.

AND THE

SYNOPSIS OF NORTH AMERICAN MAMMALS &c.

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albimanus. (Delphinus)		55	28
albinasus. (Pappo)	268	321	
albini. (Phoca)	444		364
albipes. (Bassariscus)	399	486	
albipes. (Phenacomys)	228		
albipes. (Sciurus)	69	117	
albirostris. (Delphinus)	29		26
albirostris. (Lagenorhynchus)	29		26
albirostris. (Sus)	37	66	
albiventer. (Atophyrax b.)	459		381
albiventer. (Oryzomys)	182	236	
albiventer. (Sorex b.)	459		381
albolimbatus. (Heteromys)	320	375	
albolimbatus. (Sciurus d.)	83		66
albomaculatum. (Phyllostoma)	527	708	
alborufescens. (Arvicola)	235		179
albus. (Canis)	375		
albus. (Canis l.)	375		
albus. (Dielidurus)	494	615	
albus. (Dysopes)	495	619	
albus. (Lupus)	375		
Alce	40		
Alce alces	41		
Alce gigas	41		
Alcelaphus	40		
Alces	40		37
Alces americanus	41		38
Alces gigas	41		38
Alces machlis	41		37

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Alces muswa</i>	41	.....	38
<i>Alces palmatus</i>	41	.....	38
<i>alces.</i> (<i>Alce</i>)	41	.....	.....
<i>alces.</i> (<i>Cervus</i>)	41	.....	.....
<i>alecto.</i> (<i>Dysopes</i>)	495	619	.....
<i>aleoutiensis.</i> (<i>Balæna</i>)	16	.....	8
<i>alexandrinus.</i> (<i>Mus</i>)	129	164	118
<i>alfari.</i> (<i>Oryzomys</i>)	183	242	.....
<i>alfari.</i> (<i>Sciurus</i>)	60	99	.....
<i>alfari.</i> (<i>Sigmodontomys</i>)	191	254, 255	.....
<i>alfaroi.</i> (<i>Hesperomys</i>)	183, 184	242	.....
<i>algeriensis.</i> (<i>Delphinus</i>) .....	.....	55	28
<i>Aliama</i>	22	47	16
<i>allamak.</i> (<i>Balæna</i>)	16	.....	9
<i>allamandi.</i> (<i>Galera</i>)	418	.....	.....
<i>allamandi.</i> (<i>Galictis</i>)	418	526	.....
<i>allamandi.</i> (<i>Grison</i>)	418	526	.....
<i>alleghanensis.</i> (<i>Putorius</i>)	428	.....	.....
<i>alleghenensis.</i> (<i>Putorius</i>)	428	.....	*511
<i>alleni.</i> (<i>Citellus t.</i>)	105	.....	.....
<i>alleni.</i> (<i>Heteromys</i>)	321	376	256
<i>alleni.</i> (<i>Hodomys</i>)	226	297	.....
<i>alleni.</i> (<i>Lepus</i>)	353	433	288
<i>alleni.</i> (<i>Microtus</i>)	252	.....	203
<i>alleni.</i> (<i>Neofiber</i>)	252	.....	203
<i>alleni.</i> (<i>Neotoma</i>)	226	297	.....
<i>alleni.</i> (<i>Putorius</i>)	431	.....	349
<i>alleni.</i> (<i>Rhogeëssa</i>)	489	.....	.....
<i>alleni.</i> (<i>Rhogoëssa</i>)	489	602	.....
<i>alleni.</i> (<i>Rhogoëssa</i>)	489	.....	.....
<i>alleni.</i> (<i>Sciurus</i>)	63	108	.....
<i>alleni.</i> (<i>Sigmodon</i>)	179	224	.....
<i>alleni.</i> (<i>Spermophilus</i>)	105	.....	101
<i>alleni.</i> (<i>Zapus</i>)	326	.....	261
<i>alleni.</i> (<i>Zapus t.</i>)	326, 327	.....	261
<i>allex.</i> (<i>Peromyscus</i>)	135	175	.....
<i>allophylus.</i> (<i>Peromyscus</i>)	169	208	.....
<i>alnorum.</i> (<i>Microsorex</i>)	457	.....	.....
<i>alnorum.</i> (<i>Sorex</i>)	457	.....	.....
<i>aloga.</i> (<i>Blarina b.</i>)	462	.....	.....
<i>alope.</i> (<i>Delphinus</i>)	33	58	.....
<i>Alopex</i> .....	.....	465	.....
<i>Alouatta</i>	532	726	.....
<i>Alouatta palliata.</i>	533	726	.....
<i>Alouatta p. coibensis</i>	533	727	.....
<i>Alouatta p. mexicana.</i>	533	727
<i>Alouatta villosa.</i>	532	726
<i>Alouattinæ</i>	532	725
<i>alpinus.</i> (<i>Mus</i>)	119

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
alpinus. (Pteromys s.)	121		109
alpinus. (Scapanus)	469		393
alpinus. (Sciuropterus)	121, 124		
alpinus. (Sciuropterus v.)	121		109
alpinus. (Tamias)	94		
alpinus. (Tamias m.)	94		79
alpinus. (Thomomys)	283		229
alstoni. (Caluromys)	4	9	
alstoni. (Neotomodon)	225	294	
alstoni. (Sciurus)	63	108	
alticola. (Blarina)	466	561	
alticola. (Microtus)	244		192
alticola. (Perognathus)	397		249
alticola. (Reithrodontomys s.)	197	263	
alticola. (Rhithrodontomys s.)	197	263	
alticola. (Sigmodon)	179	231	
alticola. (Thomomys f.)	280	335	
alticolus. (Arvicola)	244		192
altifrontalis. (Ursus)	395		
altilaneus. (Peromyscus)	170	210	
altimiræ. (Lepus)	354	†745	
altimiræ. (Lepus m.)	354		
altivallis. (Thomomys)	287		230
ambarvalis. (Spilogale)	415		332
ambigua. (Spilogale)	415	521	
ambiguus. (Dipodomys)	289		234
ambiguus. (Dipodomys m.)	289		234
amblyceps. (Ursus)	394, 396		
amblyotis. (Phyllostoma)	572	659	
amblyotis. (Tonatia)	512	658	
americana. (Antilocapra)	51	82, 83	43
americana. (Antilope)	51	81, 82	43
americana. (Megaptera)	17		10
americana. (Mustela)	419	334	
americana. (Taxidea)	404		320
americanus. (Alces)	41		38
americanus. (Bison)	57		49
americanus. (Cervus)		68	
americanus. (Cervus d.)	43		
americanus. (Dipus)	325		259
americanus. (Jaculus)	324		257
americanus. (Lepus)	360		273
americanus. (Manatus)	14	37	6
americanus. (Meles t.)	404		
americanus. (Mus a.)	140		124
americanus. (Mustela)	419		
americanus. (Odocoileus)	43		39
americanus. (Odontocelus)	43	70, 75	
americanus. (Peromyscus)	140		124

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
americanus. (Sciurus).....	95	.....	80
americanus. (Ursus).....	394	.....	313
americanus. (Zapus h.).....	325	.....	259
ammodytes. (Peromyscus l.).....	†542	.....	.....
Ammomys.....	233	299	178
ammon. (Ovis).....	53	.....	46
Ammospermophilus.....	96	139, 141	82, 85
amœnus. (Perognathus o.).....	307	.....	.....
amœnus. (Sorex).....	449	.....	371
amœnus. (Tamias).....	90	.....	74
amoles. (Sigmodon a.).....	179	231	.....
Amphisorex lesueuri.....	446	.....	366
amplexicaudata. (Glossophaga).....	576	672	.....
amplus. (Perognathus).....	306	.....	247
amplus. (Peromyscus).....	167	205	.....
anarnacus. (Delphinus).....	21	.....	16
anastasæ. (Peromyscus).....	143	.....	.....
anastasæ. (Peromyscus).....	143, 144	.....	128
anastasæ. (Scalops).....	470	.....	390
Ancylodon.....	21	.....	.....
andersoni. (Narwalus).....	24	.....	19
andersoni. (Synaptomys).....	257	.....	.....
angelensis. (Peromyscus b.).....	163	190	.....
angularis. (Thomomys).....	281	.....	228
angulatum. (Tagassu).....	35	63	.....
angulatus. (Dicotyles).....	35	63	.....
angustata. (Beluga).....	25	.....	.....
angusticeps. (Microtus).....	244	.....	192
angusticeps. (Neotoma i.).....	217	285	162
angusticeps. (Oryzomys).....	187	245	.....
angusticeps. (Sorex).....	461	.....	382
angustifrons. (Spilogale).....	416	521	.....
angustirostris. (Macrorhinus).....	440	.....	359
angustirostris. (Mirounga).....	440	545	.....
angustirostris. (Perognathus p.).....	311	358	252
angustirostris. (Platygeomys t.).....	267	319	.....
Anisonyx.....	117, 126	.....	102, 112
Anisonyx rufa.....	126	.....	112
anitæ. (Thomomys f.).....	280	335	.....
annectens. (Citellus s.).....	100	.....	.....
annectens. (Heteromys).....	317	371	.....
annectens. (Lutra).....	435	536	.....
annectens. (Neotoma f.).....	206	.....	160
annectens. (Spermophilus s.).....	100	.....	97
annellata. (Phoca).....	443, 444	.....	364
annulatus. (Bassariscus).....	399	487	.....
annulatus. (Citellus).....	116	151, 152
annulatus. (Paradoxurus).....	399	487
annulatus. (Spermophilus).....	116	151

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
anomalus. (Mus)	316	.....	.....
Anotus	460	549, 556	382
Anoura	579	681	.....
Anoura ecaudata	520	682	.....
Anoura geoffroyi	519	.....	.....
antarctica. (Balæna)	15, 16	.....	9
antarctica. (Phoca)	438	.....	.....
anthonyi. (Hesperomys)	137	185	141
anthonyi. (Neotoma)	214	283	.....
anthonyi. (Perognathus)	314	366	.....
anthonyi. (Peromyscus)	137	185	141
anthonyi. (Scapanus)	469	564	393
anthonyi. (Sciurus f.)	78	130	.....
anthonyi. (Sciurus g.)	78	.....	57
Anthropoidea	532	723	.....
antillarum. (Glossophaga s.)	517	672	.....
antillarum. (Oryzomys)	188	247	.....
antillensis. (Dasypsecta)	337	407	.....
antillularum. (Nyctinomus)	499	629	.....
Antilocapra	51	81	43
Antilocapra americana	51	82, 83	43
Antilocapra a. mexicana	51	82	.....
Antilocapridæ	51	81	43
Antilope americana	51	81, 82	43
Antrozoinæ	491	605	396
Antrozous	491	605	396
Antrozous minor	492	607	.....
Antrozous pallidus	491	605	396
Antrozous p. pacificus	491	607	397
Anura	519	681	.....
Anura geoffroyi	519, 520	682	.....
Aotes	533	728	.....
Aotinæ	533	728	.....
Aotus	533	728	.....
Aotus azaræ	533	728	.....
Aotus rufipes	533	729	.....
Aotus vociferans	534	729	.....
apache. (Felis)	368	.....	.....
apache. (Felis e.)	368	453	.....
apache. (Perognathus)	302, 303	.....	244
apache. (Sicurus)	64	110	58
apatelius. (Oryzomys j.)	184	246	.....
apella. (Arvicola)	249	.....	198
aphorodemus. (Microtus)	237	.....	.....
aphrastus. (Thomomys)	282	336	.....
aphylla. (Reithronycteris)	521	688	.....
aphylla. (Rhithronycteris)	521	688	.....
apicalis. (Neotoma f.)	222	.....	.....
apicalis. (Teonoma f.)	222	.....	.....
Aplocerus	52	.....	.....

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
Aplodontia	126	.....	112
Aplodontia leporina	126	.....	112
Aplodontia major	127	.....	112
Aplodontia m. rainieri	127	.....	112
Aplodontia olympica	127	.....	114
Aplodontia pacifica	127	.....	114
Aplodontia phæa	127	.....	114
apricus. (Acodon t.)	204	274	.....
apricus. (Akodon t.)	204	274	.....
apus. (Pipistrellus h.)	481	583	.....
aquaticus. (Lepus)	340	.....	277
aquaticus. (Oryzomys)	181	241	147
aquaticus. (Scalops)	470	.....	388
aquaticus. (Scalopus)	469	.....	.....
aquaticus. (Sorex)	469	.....	388
aquilonius. (Fiber z.)	253	.....	213
Aræosciurus	59, 62	94, 106	50, 58
araneus. (Sorex)	446	548	366
arboreus. (Peromyscus)	135	170	.....
Arctibeus falcatus	527	707	.....
Arctibeus leucomus	528	712	.....
arctica. (Cervus t.)	40	.....	.....
arcticeps. (Onychomys)	132	.....	121
arcticus. (Hesperomys l.)	146	.....	131
arcticus. (Lepus)	358	.....	270
arcticus. (Lepus t.)	358	.....	270
arcticus. (Leucopleurus)	29	.....	25
arcticus. (Orca)	26	51	21
arcticus. (Peromyscus)	146	.....	131
arcticus. (Putorius)	428	.....	345
arcticus. (Rangifer)	40	.....	37
arcticus. (Rosmarus)	439	.....	358
arcticus. (Sorex p.)	447	.....	368
Arctocephalus	438	543	357
Arctocephalus monteriensis	437	.....	357
Arctocephalus townsendi	438	544	.....
Arctogale	423, 426	529	338, 343
Arctomys	119	.....	104
Arctomys avarus	120	.....	.....
Arctomys beecheyi	114	.....	88
Arctomys caligatus	120	.....	106
Arctomys columbianus	111	.....	91
Arctomys dacota	120	.....	106
Arctomys douglasii	115	.....	89
Arctomys flaviventer	120	.....	106
Arctomys franklinii	105	.....	101
Arctomys guttatus	111	.....	92
Arctomys hoodi	104	.....	.....
Arctomys ignavus	119	.....	.....
Arctomys kennicottii	107	.....	89

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Arctomys latrans</i>	117	.....	102
<i>Arctomys lewisii</i>	118	.....	104
<i>Arctomys ludovicianus</i>	117	.....	102
<i>Arctomys melanopus</i>	120	.....	106
<i>Arctomys missouriensis</i>	117	.....	102
<i>Arctomys monax</i>	119	.....	105
<i>Arctomys m. canadensis</i>	120	.....	106
<i>Arctomys m. ignavus</i>	119	.....	105
<i>Arctomys olympus</i>	121	.....	107
<i>Arctomys parryi</i>	107	.....	89
<i>Arctomys p. erythroglutea</i>	108	.....	91
<i>Arctomys p. phœognatha</i>	107	.....	89
<i>Arctomys pruinosus</i>	120	.....	106
<i>Arctomys richardsonii</i>	111	.....	92
<i>Arctophoca</i>	438	.....	.....
<i>Arctopithecus</i>	9	21	.....
<i>Arctopithecus castaneiceps</i>	9	22	.....
<i>Arctopithecus griseus</i>	9	23	.....
<i>arctos.</i> (<i>Ursus</i>)	390	479	309
<i>arenacea.</i> (<i>Neotoma</i>)	214	283	.....
<i>arenarius.</i> (<i>Geomys</i>)	264	310	219
<i>arenarius.</i> (<i>Perognathus</i>)	312	.....	.....
<i>arenarius.</i> (<i>Perognathus p.</i>)	312	358	.....
<i>arenarius.</i> (<i>Peromyscus e.</i>)	137	191	136
<i>arenicola.</i> (<i>Onychomys t.</i>)	133	168	122
<i>arenicola.</i> (<i>Perognathus p.</i>)	305	.....	246
<i>arenivagus.</i> (<i>Dipodomys m.</i>)	290	347	.....
<i>arens.</i> (<i>Citellus s.</i>)	101	.....	.....
<i>arens.</i> (<i>Spermophilus s.</i>)	101	.....	.....
<i>argentata.</i> (<i>Vulpes f.</i>)	380	.....	304
<i>argentata.</i> (<i>Vulpes p.</i>)	380	.....	.....
<i>argentatus.</i> (<i>Canis</i>)	380	.....	304
<i>argentatus.</i> (<i>Scalops</i>)	470	.....	389
<i>aries.</i> (<i>Ovis</i>)	53	83	.....
<i>Ariteus</i>	526	704	.....
<i>Ariteus flavescens</i>	527	707	.....
<i>arizonæ.</i> (<i>Lepus</i>)	342, 349, 350	423	285
<i>arizonæ.</i> (<i>Lepus s.</i>)	349	.....	.....
<i>arizonæ.</i> (<i>Neotoma</i>)	223	.....	165
<i>arizonæ.</i> (<i>Peromyscus a.</i>)	140	186	125
<i>arizonæ.</i> (<i>Peromyscus l.</i>)	140	.....	.....
<i>arizonæ.</i> (<i>Peromyscus t.</i>)	141	186	.....
<i>arizonæ.</i> (<i>Sigmodon h.</i>)	176	228	144
<i>arizonæ.</i> (<i>Sitomys a.</i>)	140	.....	125
<i>arizonæ.</i> (<i>Spilogale</i>)	414	.....	331
<i>arizonæ.</i> (<i>Spilogale p.</i>)	414	.....	331
<i>arizonæ.</i> (<i>Teonoma</i>)	223	.....	.....
<i>arizonensis.</i> (<i>Cynomys</i>)	118	.....	103
<i>arizonensis.</i> (<i>Microtus m.</i>)	238	.....	183
<i>arizonensis.</i> (<i>Putorius</i>)	431	.....	349

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
arizonensis. (Reithrodontomys).....	196	.....	.....
arizonensis. (Rhithrodontomys).....	196	.....	.....
arizonensis. (Sciurus).....	61, 63	102, 109	59
Arizostus	12	31	.....
armatus. (Citellus).....	112	.....	.....
armatus. (Spermophilus).....	112	.....	93
arnuxii. (Berardius).....	23	.....	.....
arquatus. (Vespertilio).....	483	587	410
arsipus. (Vulpes).....	385	.....	.....
artemisia. (Lepus).....	.....	425	.....
artemisiae. (Peromyscus a.).....	141	.....	126
artemisiae. (Peromyscus l.).....	141	.....	.....
artemisiae. (Sitomys a.).....	141	.....	126
Artibeus.....	522, 526	691, 704	.....
Artibeus achradophilus	527	707	.....
Artibeus carpolegus	522, 523	694	.....
Artibeus coryi	522	693	.....
Artibeus eva	524	697	.....
Artibeus fallax	524	695	.....
Artibeus insularis.....	522	.....	.....
Artibeus intermedius	523	694	.....
Artibeus jamaicensis	522	693	.....
Artibeus parvipes.....	523	694	.....
Artibeus planirostris.....	524	695	.....
Artibeus sulphureus.....	527	707	.....
Artibeus vittatus	526	704	.....
Artibeus watsoni	524	696	.....
Artibeus yucatanicus.....	523	.....	.....
artus. (Perognathus).....	313	.....	.....
artus. (Perognathus g.)	313	365	.....
arvalis. (Mus).....	233	298	178
Arvicola	233, 250	298	178, 200
Arvicola alborufescens	235	.....	179
Arvicola alticolus	244	.....	192
Arvicola apella	249	.....	198
Arvicola austerus	248	.....	196
Arvicola a. minor	248	.....	197
Arvicola aztecus	237	.....	182
Arvicola borealis	247	.....	194
Arvicola breweri.....	238	.....	.....
Arvicola californica	240	.....	186
Arvicola chrotorrhinus	246	.....	.....
Arvicola cinnamomea.....	248	.....	196
Arvicola curtata	247	.....	195
Arvicola decurtata.....	247	.....	.....
Arvicola dekayi	235	.....	180
Arvicola drummondi	236	.....	181
Arvicola edax	241	.....	187
Arvicola ferrugineus	175	.....	144
Arvicola floridana	209, 210	.....	.....

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Arvicola fulva</i>	235	.....	180
<i>Arvicola gapperi</i>	230	.....	172
<i>Arvicola haydenii</i>	248	.....	197
<i>Arvicola helvolus</i>	259	.....	208
<i>Arvicola hirsutus</i>	235	.....	175
<i>Arvicola hortensis</i>	175	.....	144
<i>Arvicola insperatus</i>	236	.....	180
<i>Arvicola kennicotti</i>	249	.....	198
<i>Arvicola leucophæus</i>	245	.....	192
<i>Arvicola longicaudus</i>	243	.....	191
<i>Arvicola longirostris</i>	238	.....	182
<i>Arvicola mexicanus</i>	245	301	.....
<i>Arvicola microcephalus</i>	236	.....	181
<i>Arvicola modesta</i>	236	.....	180
<i>Arvicola mogollonensis</i>	246	.....	192
<i>Arvicola montanus</i>	238	.....	182
<i>Arvicola mordax</i>	244	.....	191
<i>Arvicola nanus</i>	239	.....	184
<i>Arvicola nasuta</i>	235	.....	180
<i>Arvicola nuttalli</i>	160	.....	140
<i>Arvicola occidentalis</i>	243	.....	190
<i>Arvicola oneida</i>	235	.....	180
<i>Arvicola operarius</i>	241	.....	187
<i>Arvicola oregoni</i>	250	.....	200
<i>Arvicola oryzivora</i>	180	.....	147
<i>Arvicola pallidus</i>	247	.....	195
<i>Arvicola palustris</i>	234	.....	179
<i>Arvicola pauperrima</i>	247	.....	195
<i>Arvicola phæus</i>	245	302	.....
<i>Arvicola p. quasiater</i>	249	.....	.....
<i>Arvicola richardsoni</i>	250	.....	200
<i>Arvicola riparius</i>	234	.....	179
<i>Arvicola r. longipilis</i>	235	.....	180
<i>Arvicola rufescens</i>	235	.....	180
<i>Arvicola rufidorsum</i>	235	.....	180
<i>Arvicola scalopsoides</i>	249	.....	198
<i>Arvicola terrænovæ</i>	238	.....	.....
<i>Arvicola tetramerus</i>	243	.....	190
<i>Arvicola texiana</i>	175	.....	144
<i>Arvicola townsendi</i>	243	.....	190
<i>Arvicola trimucronatus</i>	258	.....	207
<i>Arvicola trowbridgi</i>	240	.....	186
<i>Arvicola xanthognatha</i>	246	.....	193
<i>arvicoloides</i> . (<i>Microtus r.</i>)	251	.....	202
<i>Asagis</i>	1	5	.....
<i>Ascomys</i>	261	310	215
<i>Ascomys canadensis</i>	262	.....	217
<i>Ascomys umbrinus</i>	272
<i>asellus</i> . (<i>Lepus</i>)	355	435
<i>Astromyctes</i>	467	394
<i>Astromydes</i>	467	394

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astuta. (Bassaris)	397	484
astutus. (Bassariscus)	397, 398	484	316
Atalapha	485	591	411
Atalapha borealis	485	593	.....
Atalapha b. seminola	486	.....	.....
Atalapha frantzii	486	594	.....
Atalapha mexicana	486	594	.....
Atalapha pfeifferi	486	593	.....
Atalapha teliotis	486	593	413
Ateles	534	732	.....
Ateles albifrons	535	733	.....
Ateles ater	535	734	.....
Ateles fuliginosus	534	733	.....
Ateles geoffroyi	535	733	.....
Ateles griseus	535	734	.....
Ateles hybridus	535	733	.....
Ateles melanochir	535	733	.....
Ateles ornatus	535	733	.....
Ateles pan	534	733	.....
Ateles rufiventris	535	734	.....
Ateles variegatus	535	733	.....
Ateles vellerosus	534	733	.....
ater. (Ateles)	535	734	.....
ater. (Lupus)	376	.....	.....
ater. (Orca)	26	.....	.....
athabascæ. (Bison a.)	57	.....	49
athabascæ. (Bison b.)	57	.....	.....
Atophrax	459	.....	380
Atophrax benderii	459	.....	381
Atophrax b. albiventer	459	.....	381
Atophrax b. palmeri	459	.....	381
atra. (Orca) . . . . .	.....	.....	22
atrata. (Mustela)	422	.....	335
atricapillus. (Citellus v.)	114	150	.....
atricapillus. (Spermophilus g)	114	150	.....
atronasus. (Dipodomys m.)	290	348	.....
atrovarius. (Thomomys)	283	338	.....
attwateri. (Geomys b.)	263	.....	219
attwateri. (Lepus a.)	340	414	278
attwateri. (Neotoma)	210	.....	.....
attwateri. (Neotoma f.)	210	.....	157
attwateri. (Peromyscus)	154	.....	135
auduboni. (Lepus)	345	422	283
auduboni. (Ovis c.)	53	.....	*484
auduboni. (Sciurus)	65	.....	52
auduboni. (Vespertilio)	480	.....	407
Aulacomys	234	179
Aulacomys arvicoloides	251	202
aurantius. (Reithrodontomys a.)	198	153

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
aurantius. (Reithrodontomys m.)	198		153
aurantius. (Rhithrodontomys m.)	198		
aureigaster. (Sciurus)	68, 74	115, 124	
aureogaster. (Sciurus)	69, 74	116, 124	
aureus. (Reithrodontomys t.)	201	269	
aureus. (Rhithrodontomys t.)	201	269	
aureus. (Thomomys)	285		229
auricularis. (Microtus p.)	249		198
auripectus. (Peromyscus)	153		134
auripectus. (Sitomys)	153		134
aurispinosus. (Dysopes)	499	627	
aurita. (Didelphys)	8	17	
aurita. (Lonchorina)	507, 508	650	
auritus. (Cervus)	48	76	42
auritus. (Chrotopterus)	512	656	
auritus. (Dysopes)	499	627	
auritus. (Peromyscus)	170	209	
auritus. (Vampyrus)	511, 512	656	
aurogaster. (Sciurus)	68	115	
austerulus. (Sigmodon)	180	231	
austerus. (Arvicola)	248		196
austerus. (Hesperomys)	149		132
austerus. (Microtus)	248		196
austerus. (Peromyscus)	149		132
australis. (Balæna)	15, 16		8, 9
australis. (Eubalæna)	15		8
australis. (Hydrodamalis)		36	
australis. (Manatus)	14	37	6
australis. (Pipistrellus h.)	481	584	
australis. (Reithrodontomys)	194		
australis. (Rhithrodontomys)	194	259	
australis. (Scalops a.)	470		
australis. (Scalopus a.)	470		390
austrinus. (Geomys f.)	262		
austrinus. (Geomys t.)	262		217
austroriparius. (Vespertilio l.)	478		402
avarus. (Arctomys f.)	120		†427
avarus. (Marmota f.)	120		
avia. (Mephitis)	407		327
avia. (Mephitis m.)	407		
azarae. (Aotus)	533	728	
azteca. (Carollia)	515	669	
aztecus. (Arvicola)	237		182
aztecus. (Felis h.)	369	454	
aztecus. (Hesperomys)	162	184	
aztecus. (Lepus f.)	344	418	
aztecus. (Lepus s.)	344		
aztecus. (Microtus)	237		182
aztecus. (Molossus)	495	620	

† Appendix.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
aztecus. (<i>Oryzomys c.</i>)	183	245	.....
aztecus. (<i>Peromyscus</i>)	162	184	.....
aztecus. (<i>Potos f.</i>)	404	500	.....
aztecus. (<i>Reithrodontomys</i>)	193	259	151
bachmani. (<i>Lepus</i>)	352	429	.....
bachmani. (<i>Lepus f.</i>)	352	.....	281
bachmani. (<i>Lepus s.</i>)	343	.....	.....
badius. (<i>Citellus t.</i>)	105	.....	.....
badius. (<i>Peromyscus y.</i>)	163	194	.....
badius. (<i>Spermophilus t.</i>)	105	.....	101
bahamensis. (<i>Nyctinomus</i>)	500	630	.....
bahamensis. (<i>Vespertilio f.</i>)	484	588	.....
baileyi. (<i>Felis r.</i>)	372	459	297
baileyi. (<i>Lepus</i>)	349	.....	284
baileyi. (<i>Lynx</i>)	372	.....	.....
baileyi. (<i>Neotoma</i>)	210	.....	156
baileyi. (<i>Neotoma c.</i>)	210	.....	.....
baileyi. (<i>Perognathus</i>)	309	361	251
baileyi. (<i>Sciurus h.</i>)	81	.....	63
baileyi. (<i>Sigmodon</i>)	177	226	.....
baileyi. (<i>Sigmodon h.</i>)	177	226	.....
baileyi. (<i>Thomomys</i>)	286	.....	.....
Baiomys	135	170	123
Baiosciurus	59, 60	94, 100	50
bairdi. (<i>Berardius</i>)	24	.....	*481
bairdi. (<i>Delphinus</i>)	30	55	28
bairdi. (<i>Lepus a.</i>)	361	.....	274
bairdi. (<i>Microtus</i>)	250	.....	200
bairdi. (<i>Sorex</i>)	451	.....	373
bairdi. (<i>Tapirella</i>)	58	87	.....
bairdii. (<i>Elasmognathus</i>)	58	87	.....
bairdii. (<i>Lepus</i>)	361	.....	274
Balæna	15	.....	7
Balæna aleoutiensis	16	.....	8
Balæna allamak	16	.....	9
Balæna antarctica	15, 16	.....	9
Balæna australis	15, 16	.....	8, 9
Balæna a. biscayensis	15	.....	8
Balæna biscayensis	15	.....	8
Balæna boops	17, 19	40	13
Balæna borealis	20	.....	13
Balæna britannicus	15	.....	8
Balæna cisarctica	15	.....	8
Balæna glacialis	15	.....	8
Balæna groenlandica	16	.....	8
Balæna keporkak	17	.....	10
Balæna kuzira	16	.....	9
Balæna longimana	17	.....	10
Balæna musculus	20	.....	13

*Supplement.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Balæna mysticetus</i>	16	39	8
<i>Balæna m. pittekajensis</i>	16	.....	8
<i>Balæna nodosa</i>	17	.....	10
<i>Balæna physalus</i>	19, 20	.....	13
<i>Balæna rostrata</i>	21	.....	11, 16
<i>Balæna sieboldii</i>	15	.....	8
<i>Balænidæ</i>	15	38, 39	7
<i>Balæninæ</i>	15	.....	.....
<i>Balænoptera</i>	18	42	11
<i>Balænoptera acuto-rostrata</i>	18	.....	11
<i>Balænoptera borealis</i>	19, 20	.....	13
<i>Balænoptera davidsoni</i>	19	42	12
<i>Balænoptera gibbar</i>	18	42	.....
<i>Balænoptera mondini</i>	19	.....	.....
<i>Balænoptera musculus</i>	20	.....	13
<i>Balænoptera physalus</i>	19, 20	.....	13
<i>Balænoptera roqual</i>	19	.....	13
<i>Balænoptera stejneri</i>	23	.....	.....
<i>Balænoptera sulfurea</i>	20	38, 43	14
<i>Balænoptera velifera</i>	19	43	12
<i>Balænoptera v. copei</i>	19	.....	13
<i>Balænopterinæ</i>	18	42	11
<i>Balantiapteryx</i>	493	611	.....
<i>Balantiapteryx infusca</i>	493	611	.....
<i>Balantiapteryx plicata</i>	493	611	.....
<i>baliolus</i> . (<i>Peromyscus s.</i>).....	139	.....	141
<i>baliolus</i> . (<i>Sciurus y.</i>).....	75	126	.....
<i>balteatus</i> . (<i>Delphinus</i>).....	31	55	28
<i>banderanus</i> . (<i>Peromyscus</i>).....	163	189	.....
<i>bangsi</i> . (<i>Lepus a.</i>).....	358	.....	270
<i>bangsi</i> . (<i>Perognathus l.</i>).....	305	.....	.....
<i>bangsi</i> . (<i>Perognathus p.</i>).....	305	.....	245
<i>bangsi</i> . (<i>Sciuropterus a.</i>).....	124	.....	.....
<i>bangsi</i> . (<i>Vulpes f.</i>).....	381	.....	.....
<i>bangsi</i> . (<i>Vulpes p.</i>).....	381	.....	†434
<i>bangsi</i> . (<i>Vulpes r.</i>).....	381	.....	.....
<i>barbara</i> . (<i>Mustela</i>).....	418	.....	.....
<i>barbata</i> . (<i>Phoca</i>).....	441	.....	362
<i>barbatus</i> . (<i>Vespertilio</i>).....	502	634	.....
<i>barberi</i> . (<i>Sciurus</i>).....	67	†741	.....
<i>barberi</i> . (<i>Sciurus a.</i>).....	67	.....	.....
<i>barrowensis</i> . (<i>Citellus</i>).....	110	.....	91
<i>barrowensis</i> . (<i>Spermophilus</i>).....	110	.....	91
<i>Bassaricyon</i>	400	487	.....
<i>Bassaricyon gabbi</i>	400	487, 489	.....
<i>Bassaricyon gabbi</i>	400
<i>Bassar</i>	397	483	315
<i>Bassar</i> <i>astuta</i>	397	484
<i>Bassar</i> <i>monticola</i>	398	487

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<i>Bassaris raptor</i>	398
<i>Bassaris variabilis</i>	398	487
<i>Bassariscus</i>	397	482	315
<i>Bassariscus albipes</i>	399	486	.....
<i>Bassariscus annulatus</i>	399	487	.....
<i>Bassariscus astutus</i>	397, 398	484	316
<i>Bassariscus a. flavus</i>	398	485	316
<i>Bassariscus a. raptor</i>	398	.....	316
<i>Bassariscus f. oregonus</i>	398	.....	317
<i>Bassariscus saxicola</i>	398	485	.....
<i>Bassariscus sumichrasti</i>	398	.....	.....
<i>Bassariscus s. notinus</i>	399	485	.....
<i>battyi</i> . (<i>Didelphys m.</i>)	7	17	.....
<i>battyi</i> . (<i>Lepus g.</i>)	355	433	.....
<i>battyi</i> . (<i>Odocoileus</i>)	45	71	.....
<i>battyi</i> . (<i>Odontocœlus</i>)	45	71	.....
<i>beatae</i> . (<i>Peromyscus</i>)	162	184	.....
<i>beecheyi</i> . (<i>Arctomys</i>)	114	.....	88
<i>beecheyi</i> . (<i>Citellus v.</i>)	114	150	.....
<i>beecheyi</i> . (<i>Spermophilus g.</i>)	114	.....	88
<i>belcheri</i> . (<i>Sciurus</i>)	82	.....	65
<i>beldingi</i> . (<i>Citellus</i>)	113	.....	.....
<i>beldingi</i> . (<i>Spermophilus</i>)	113	.....	94
<i>bella</i> . (<i>Neotoma</i>)	218	.....	†429
<i>belli</i> . (<i>Sorex</i>) .....	.....	.....	368
<i>bellicosa</i> . (<i>Megaptera n.</i>)	18	41	.....
<i>bellus</i> . (<i>Peromyscus</i>)	154	.....	135
<i>belti</i> . (<i>Sciurus b.</i>)	77	128	.....
<i>Beluga angustata</i>	25	.....	.....
<i>Beluga concreta</i>	25	.....	20
<i>Beluga declivis</i>	25	.....	20
<i>Beluga rhinodon</i>	25	.....	19
<i>beluga</i> . (<i>Delphinapterus</i>)	25	.....	19
<i>belzebul</i> . (<i>Simia</i>)	532	726	.....
<i>bendirii</i> . (<i>Atophyrax</i>)	459	.....	381
<i>Benedenia</i>	18	42	11
<i>Benedenia knoxii</i>	20	.....	13
<i>bennetti</i> . (<i>Lepus</i>)	357	437	.....
<i>Berardius</i>	23	.....	*481
<i>Berardius arnuxii</i>	23	.....	.....
<i>Berardius bairdi</i>	24	.....	*481
<i>beringensis</i> . (<i>Citellus</i>)	110	.....	.....
<i>beringensis</i> . (<i>Spermophilus</i>)	110	.....	91
<i>beringensis</i> . (<i>Vulpes</i>)	383	.....	.....
<i>berlandieri</i> . (<i>Blarina</i>)	462	558	.....
<i>berlandieri</i> . (<i>Blarina b.</i>)	462	558
<i>berlandieri</i> . (<i>Sigmodon</i>)	175	227
<i>berlandieri</i> . (<i>Sigmodon h.</i>)	175	225, 227

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
berlandieri. (Taxidea)	405	.....	.....
berlandieri. (Taxidea a.)	405	.....	321
berlandieri. (Taxidea t.)	405	503	.....
bernardinus. (Citellus c.)	107	.....	84
bernardinus. (Eptesicus f.)	483	.....	.....
bernardinus. (Spermophilus)	107	.....	.....
bernardinus. (Spermophilus c.)	107	.....	.....
bernardinus. (Vespertilio f.)	483	589	.....
bicolor. (Mephitis)	412	.....	328
bicolor. (Phyllostoma)	515	669	.....
bidens. (Mesoplodon)	23	.....	*480
bidens. (Physeter)	23	.....	19
bidens. (Vampyrus)	512	658	.....
bidentatus. (Delphinus)	21	.....	16
bilabiatum. (Phyllostoma)	528	712	.....
bilabiatum. (Pygoderma)	528	712	.....
bilineata. (Saccopteryx)	493	610	.....
bilineatus. (Urocryptus)	493	*610	.....
bilobatum. (Uroderma)	524	697	.....
bimaculatus. (Perognathus)	302	.....	244
bimaculatus. (Perognathus f.)	302	.....	244
biologiæ. (Galera b.)	418	.....	.....
biologiæ. (Galictis b.)	418	.....	.....
biologiæ. (Grison b.)	418	524	.....
biscayensis. (Balæna)	15	.....	8
biscayensis. (Balæna a.)	15	.....	8
bishopi. (Lepus)	362	.....	276
Bison	57	.....	48
Bison americanus	57	.....	49
Bison a. athabascæ	57	.....	149
Bison bison	57	.....	.....
Bison b. athabascæ	57	.....	.....
bison. (Bison)	57	.....	.....
bison. (Bos)	57	.....	.....
bisulcus. (Equus)	50	.....	.....
bivittata. (Tamandua)	10	27	.....
blainvillii. (Mormoops)	506	646, 649	.....
blainvillii. (Mormops)	507	649	419
blandus. (Peromyscus l.) .....	.....	182	.....
blandus. (Peromyscus s.)	142	182	.....
Blaria	460	.....	381
Blarina	460	555	381
Blarina alticola	466	561	.....
Blarina berlandieri	462	558	.....
Blarina brevicauda	460, 461	.....	382
Blarina b. aloga	462	.....	.....
Blarina b. berlandieri	462	558
Blarina b. carolinensis	461	383
Blarina b. compacta	462

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
Blarina b. hulophaga.....	461	.....	383
Blarina b. hylophaga.....	461	.....	.....
Blarina b. peninsulæ.....	461	.....	383
Blarina b. talpoides.....	461	.....	.....
Blarina costaricensis.....	461	.....	382
Blarina c. peninsulæ.....	461	.....	.....
Blarina exilipes.....	463	.....	384
Blarina eximius.....	463	.....	384
Blarina floridana.....	463	.....	385
Blarina fossor.....	466	562	.....
Blarina magna.....	466	562	.....
Blarina mayensis.....	465	561	.....
Blarina mexicana.....	464	560	.....
Blarina m. goldmani.....	465	560	.....
Blarina m. machetes.....	465	561	.....
Blarina m. peregrina.....	465	560	.....
Blarina micrura.....	.....	559	.....
Blarina nelsoni.....	465	561	.....
Blarina nigrescens.....	463	558	.....
Blarina obscura.....	464	559	.....
Blarina oreophila.....	464	559	.....
Blarina orophila.....	464	559	.....
Blarina parva.....	463	.....	384
Blarina pergracilis.....	463	559	.....
Blarina soricina.....	464	560	.....
Blarina telmalestes.....	462	.....	384
Blarina tropicalis.....	464	559	.....
bocourtianus. (Macrotus).....	510	654	.....
bocourtianus. (Otopterus).....	510	654	.....
boliviense. (Akodon).....	204	272	.....
bombifrons. (Phyllonycteris).....	520	685	.....
bonasus. (Bos).....	.....	.....	48
boops. (Balæna).....	17, 19	40	13
boothi. (Chilonycteris).....	505	642	.....
boothia. (Sciurus).....	75, 76	127, 128	.....
boquetensis. (Sciurus).....	60	100	.....
borealis. (Arvicola).....	247	.....	194
borealis. (Atalapha).....	485	593	.....
borealis. (Balæna).....	20	.....	13
borealis. (Balænoptera).....	19, 20	.....	13
borealis. (Cystophora).....	440	.....	360
borealis. (Delphinapteris).....	32	.....	30
borealis. (Geomys).....	275, 278	.....	224, 227
borealis. (Lasiurus).....	485	592	411
borealis. (Lepus).....	360	.....	273
borealis. (Lissodelphis).....	32	.....	30
borealis. (Microtus).....	247	.....	194
borealis. (Odocoileus a.).....	43	.....	.....
borealis. (Odontocœlus a.).....	43	.....	.....
borealis. (Tamias a.).....	92	.....	77

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
borealis. (Tamias q.)	92	.....	77
borealis. (Urocyon c.)	388	.....	.....
borealis. (Vespertilio)	485	592	411
boria. (Mustela)	421	.....	.....
Boriotkon	260	.....	.....
borucæ. (Sigmodon)	178	224	.....
borucæ. (Sigmodon h.)	178	224, 232	.....
Bos bison	57	.....	.....
Bos bonasus	.....	.....	48
Bos canaliculatis	56	.....	48
Bos moschatus	55	.....	.....
Bos pallasi	56	.....	48
bottæ. (Oryctomys)	274	.....	223
bottæ. (Thomomys)	274	.....	223
Bovidæ	52	83	44
boylii. (Hesperomys)	150	195	132
boylii. (Peromyscus)	150	195	132
brachycium. (Phocæna)	25	48	20
Brachylagus	340, 351	.....	287
brachyotum. (Phyllostoma)	515	669	.....
Brachyotus	473	571	400
Brachyphylla	521	688	.....
Brachyphylla cavernarum	521	689	.....
Brachyphylla nana	522	690	.....
brachypterus. (Globicephalus)	28	53	.....
brachypterus. (Globiocephalus)	28	53	24
Brachysorex	460	555	381
Bradypodidæ	9	19	4
Bradypus	9	21	.....
Bradypus castaneiceps	9	22	.....
Bradypus didactylus	9	19	.....
Bradypus griseus	.....	24	.....
Bradypus infuscatus	9	23	.....
Bradypus tridactylus	9	21	.....
brasiliensis. (Felis)	367	449	.....
brasiliensis. (Nyctinomus)	501	629	417
brevicauda. (Blarina)	460, 461	.....	382
brevicauda. (Zygodontomys)	.....	254	.....
brevicaudum. (Hemiderma)	515	669	.....
brevicaudum. (Phyllostoma)	515	668	.....
brevicaudus. (Evotomys)	231	.....	174
brevicaudus. (Evotomys g.)	231	.....	.....
brevicaudus. (Onychomys l.)	130	.....	120
brevicaudus. (Sorex)	460	.....	382
brevicaudus. (Spermophilus c.)	107	.....	84
breviceps. (Cogia)	22	46	.....
breviceps. (Geomys)	263	218
breviceps. (Kogia)	22	*479
breviceps. (Physeter)	22	46	*479

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
brevimanus. (Chilonatalis)	502, 503	636	.....
brevimanus. (Natalus)	502	.....	.....
brevinasus. (Perognathus p.)	305	355	246
breweri. (Arvicola)	238	.....	.....
breweri. (Microtus)	238	.....	182
breweri. (Parascalops)	471	.....	394
breweri. (Scalops)	471	.....	394
bridgeri. (Thomomys)	279	.....	.....
britannicus. (Balæna)	15	.....	8
brochus. (Syntheosciurus)	59	91	.....
brochus. (Synthetosciurus)	59	91	.....
browni. (Capromys)	331	393	.....
browni. (Felis a.)	369	.....	.....
browni. (Sciurus)	60	100	.....
brumalis. (Mustela)	420	.....	336
brumalis. (Mustela a.)	420	.....	336
brunneus. (Peromyscus m.)	136	176	.....
bryanti. (Neotoma)	208	280	.....
bryanti. (Perognathus)	316	.....	.....
bryanti. (Perognathus s.)	316	364	.....
buccatus. (Citillus) .....	.....	149	.....
buckleyi. (Citellus v.)	115	.....	.....
buckleyi. (Spermophilus)	115	.....	89
buckleyi. (Spermophilus g.)	115	.....	89
bulbivorum. (Diplostoma)	272	.....	.....
bulbivorus. (Thomomys)	272	.....	222
bullaris. (Tylomys)	173	219	.....
bullata. (Nasua n.)	403	497	.....
bullata. (Neotoma m.)	213	282	158
bullatus. (Peromyscus)	158	193	.....
bullatus. (Synaptomys)	258	.....	.....
bulleri. (Geomys)	268	320	.....
bulleri. (Heteromys)	317	369	.....
bulleri. (Macrotus)	510	654	.....
bulleri. (Oryzomys)	185	239	.....
bulleri. (Otopterus)	510	654	.....
bulleri. (Pappogeomys)	268	320	.....
bulleri. (Tamias)	88	136, 137	.....
bulleri. (Tamias a.)	88	.....	.....
burrus. (Proechimys)	330	388, 396	.....
burrus. (Proechinomys)	330	388	.....
bursarius. (Geomys)	262, 263	.....	217
bursarius. (Mus)	262	.....	217
bursarius. (Saccophorus)	262	.....	.....
butskopf. (Delphinus)	21	.....	16
Cabassous.	12	31	4
Cabassous centralis.	12	32	.....
Cabassous novemcinctus.	13	34	4
cabezonæ. (Perodipus)	295	.....	.....

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
cabezonæ. (Thomomys)	286	.....	.....
cacabatus. (Peromyscus)	171	211	.....
Cachicamus.....	13	32	.....
cacomitli. (Felis)	367	.....	.....
cacomitli. (Felis j.)	367	451	.....
cæcus. (Dysopes) .....	.....	627	.....
cagottis. (Canis)	378	465	.....
cagottis. (Lyciscus)	378	.....	.....
calcaratum. (Phyllostoma)	515	669	.....
californiana. (Otaria)	437	.....	356
californianus. (Ovis)	53	.....	46
californianus. (Zalophus)	437	.....	356
californica. (Arvicola)	240	.....	186
californica. (Didelphis)	6	15	.....
californica. (Didelphys)	6	.....	3
californica. (Felis r.)	372	458	298
californica. (Haplodon)	127	.....	.....
californica. (Haplodontia r.)	127	.....	112
californica. (Lepus)	357	437	.....
californica. (Neotoma)	216	.....	.....
californicus. (Cariacus h.)	49	77	43
californicus. (Cervus m.)	49	77	.....
californicus. (Dipodomys)	291	.....	236
californicus. (Evotomys)	232	.....	176
californicus. (Lepus)	357	437	291
californicus. (Lynx r.)	372	458	298
californicus. (Macrotus)	509	653	420
californicus. (Microdipodops)	300	.....	.....
californicus. (Microtus)	240	.....	186
californicus. (Molossus)	498	.....	.....
californicus. (Mus)	137	203	137
californicus. (Myotis)	476	578	.....
californicus. (Nyctinomus b.)	500	.....	.....
californicus. (Odocoileus h.)	49	77	43
californicus. (Odontocælus h.)	49	76, 77, 78	.....
californicus. (Otopterus)	509, 510	653	420
californicus. (Perognathus)	315	.....	254
californicus. (Peromyscus)	137, 138	203	137
californicus. (Promops)	498	.....	421
californicus. (Scalops)	468	.....	392
californicus. (Scapanus)	468	.....	392
californicus. (Sciuropterus a.)	122	.....	.....
californicus. (Sciuropterus v.)	122	.....	110
californicus. (Sciurus)	114	.....	.....
californicus. (Sciurus h.)	83	.....	66
californicus. (Sorex)	452	.....	374
californicus. (Urocyon c.)	387	477	308
californicus. (Ursus h.)	392	.....	.....
californicus. (Vespertilio)	476	578	.....
caligatus. (Arctomys)	120	.....	106

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
caliginosus. (<i>Hesperomys</i>)	190	253
callida. (<i>Dasyprocta</i>)	336	406
callopeplus. (<i>Tamias</i>)	89	73
callistus. (<i>Perognathus</i>)	304	245
Callitrichidæ	532
callitrichus. (<i>Cercopithecus</i>)	536
Callocephalus dimidiatus.....	444	364
Callocephalus discolor.....	444	364
Callorhinus.....	438	357
Callorhinus alascanus.....	438
Callospermophilus.....	96, 105	139, 147	82
Callospermophilus c. trinitatis.....	107
Callospermophilus madrensis.....	106	147
Callotaria.....	438	357
Callotaria alascana.....	438
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Campicola	234
canadensis. (<i>Arctomys</i> m.)	120	106
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canescens. (Eutamias)	86
canescens. (Marmosa)	2	6
canescens. (Microtus n.)	239	185
canescens. (Neotoma m.)	208
canescens. (Perognathus i.)	313
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canescens. (Spermophilus)	101	97
canescens. (Tamias)	86
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canicaudus. (Microtus)	239	185
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<i>Canis peninsulæ</i>	378	466
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<i>Canis virginianus</i>	386	307
<i>Canis vulpes</i>	380	471
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<i>Chilonatalus</i>	502	635	
<i>Chilonatalus tumidifrons</i>	503	637	
<i>Chilonycteris</i>	503	639	
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<i>Chilonycteris d. fulvus</i>	506		
<i>Chilonycteris fuliginosa</i>	504	641	
<i>Chilonycteris grisea</i>	504		
<i>Chilonycteris macleayi</i>	503, 504	641	
<i>Chilonycteris m. fuliginosa</i>	504	641, †748	
<i>Chilonycteris m. grisea</i>	504	†747	
<i>Chilonycteris m. inflata</i>	504	†747	
<i>Chilonycteris mexicana</i>	506	644	
<i>Chilonycteris osburnii</i>	505	642	
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<i>Chincha platyrhina</i>	409		
chiriquensis. (<i>Myotis</i>)	475	576	
chiriquensis. (<i>Potos f.</i>)	404	501	
chiriquensis. (<i>Sciurus æ.</i>)	62	104	
chiriquensis. (<i>Sigmodon b.</i>)	178	225	
chiriquensis. (<i>Sigmodon h.</i>)	178	225	
chiriquensis. (<i>Tamandua t.</i>)	11		
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Chironectes minimus	1	3	
Chironectes palmata	1	3	
Chironectes variegatus	1	3	
Chironectes yapock	1	3	
Chiroptera	473	569	396
chlorus. (Citellus)	103		
Chœronycteris	517	673	
Chœronycteris godmani	517	674	
Chœronycteris mexicana	517	673	
Chœronycteris minor	517	674	
Choloepus	9	19	
Choloepus hoffmanni	9	20	
Chrotopterus	511	656	
Chrotopterus auritus	512	656	
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chrotorrhinus. (Microtus)	246		193
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chrysodeirus. (Citellus)	106		84
chrysodeirus. (Spermophilus)	106		84
chrysodeirus. (Tamias)	106		84
chrysomelas. (Oryzomys)	190	253	
chrysomelas. (Zygodontomys)	190	253	
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chrysopsis. (Rhithrodontomys)	199	265, 266	
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Chrysothrix sciurea	534	731	
chrysotis. (Reithrodontomys)	195		152
chrysotis. (Rhithrodontomys)	195		
chrysurus. (Myoxus)	328	383	
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cicognanii. (Mustela)	426		344
ciliolabrum. (Myotis c.)	477		404
ciliolabrum. (Vespertilio)	477		
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cinerascens. (Lepus)	352	429	287
cinerascens. (Spermophilus)	106		83
cinerascens. (Tamias)	106		83
cinerea. (Didelphis)	3	7	
cinerea. (Didelphys)	3		
cinerea. (Edostoma)	530	718	
cinerea. (Geomys)	262		217
cinerea. (Marmosa)	3	7	
cinerea. (Mus)	220		
cinerea. (Neotoma)	220		163
cinerea. (Teonoma)	220, 221		
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cinereus. (Rhithrodontomys s.).....	196	262
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cinereus. (Sorex)	463	384
cinereus. (Vespertilio)	487	595	413
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cinnamomea. (Arvicola)	248	196
cinnamomea. (Mormops b.)	507	649
cinnamomea. (Neotoma)	223	166
cinnamomea. (Ochotona)	338
cinnamomea. (Teonoma)	223
cinnamomeum. (Lobostoma)	507	649
cinnamomeus. (Citellus l.)	97
cinnamomeus. (Pipistrellus)	482	585
cinnamomeus. (Spermophilus l.)	97	86
cinnamomeus. (Tamias l.)	97	86
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Citellus columbianus	111
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Citellus erythroglutæus	108
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Citellus franklini	105
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<i>Citellus madrensis</i>	106	147
<i>Citellus mexicanus</i>	103	146
<i>Citellus m. parvidens</i>	104	146
<i>Citellus mollis</i>	112
<i>Citellus m. canus</i>	112
<i>Citellus m. stephensi</i>	112
<i>Citellus m. yakimensis</i>	112
<i>Citellus nebulicola</i>	109
<i>Citellus neglectus</i>	103
<i>Citellus nelsoni</i>	98
<i>Citellus nesioticus</i>	115
<i>Citellus obsoletus</i>	99
<i>Citellus oregonus</i>	113
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<i>Citellus s. arens</i>	101
<i>Citellus s. macrospilotus</i>	99	145
<i>Citellus s. major</i>	99
<i>Citellus s. marginatus</i>	100
<i>Citellus s. obsidianus</i>	100
<i>Citellus s. pratensis</i>	100
<i>Citellus stonei</i>	110
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<i>Citellus v. grammurus</i>	113, 114	149, 150
<i>Citellus v. rupestris</i>	114	150
<i>Citellus v. utah</i>	115
<i>Citellus vinnulus</i>	98	.....	.....
<i>Citellus wortmani</i>	107	.....	.....
<i>citellus. (Mus)</i>	96	139	81
<i>Citillus</i>	96	139	81
<i>Citillus buccatus</i> .....	.....	149	.....
<i>Citillus mexicanus</i>	103	146	.....
<i>clarkii. (Geomys)</i>	266	315	220
<i>clavatus. (Odocoileus)</i>	46	73	.....
<i>clementæ. (Urocyon)</i>	390	.....	.....
<i>clementis. (Peromyscus t.)</i>	145	187	130
<i>clepticus. (Canis)</i>	379	467	.....
<i>clinedaphus. (Monophyllus)</i>	518	678	.....
<i>clusius. (Thomomys)</i>	284	.....	229
<i>Clymene</i>	32	57	30
<i>Clymene marginatus</i>	31	55	28
<i>Clymene normalis</i>	34	.....	32
<i>Clymene similis</i>	30	.....	27
<i>clymene. (Delphinus)</i>	34	.....	32
<i>Clymenia</i>	32	57	30
<i>Clymenia euphrosinoides</i>	34	59	30
<i>Clymenia novæ-zelandiæ</i>	34	59	30
<i>cnecus. (Perognathus)</i>	309	362	.....
<i>cnemophila. (Neotoma)</i>	207	.....	.....
<i>cnemophila. (Neotoma f.)</i>	207	.....	.....
<i>Cnephæus</i>	482	585	410
<i>Cnephaiophilus</i>	480	.....	407
<i>cocos. (Sciurus s.)</i>	74	124	.....
<i>Coelogenus</i>	337	408
<i>Coendou</i>	334
<i>Coendou lænatus</i>	335	402
<i>Coendou m. yucatanicæ</i>	335	402
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<i>Coendu</i>	334	399
<i>Coendu lænatum</i>	335	402
<i>Coendu mexicanum</i>	335	402
<i>Coendu m. yucatanicæ</i>	335	402
<i>Coendu pallidum</i>	334	401	.....
<i>Coendu rothschildi</i>	334	401	.....
<i>Cogia</i>	22	46	.....
<i>Cogia breviceps</i>	22	46	.....
<i>cognatus. (Hesperomys)</i> .....	.....	.....	127
<i>coibæ. (Dasyprocta)</i>	336	407	.....
<i>coibensis. (Alouatta p.)</i>	533	727	.....
<i>coibensis. (Molossus)</i>	496
<i>colimæ. (Reithrodontomys)</i>	200	266
<i>colimæ. (Rhithrodontomys)</i>	200	266, 267

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Colobotis.....	96, 107	139	82, 89
colonus. (Geomys).....	262	217
coloratus. (Oryzomys a.).....	181	148
coloratus. (Oryzomys p.).....	181
columbiana. (Cervus m.).....	48	41
columbiana. (Neotoma c.).....	221	165
columbiana. (Teonoma c.).....	221
columbianus. (Arctomys).....	111	91
columbianus. (Citellus).....	111
columbianus. (Odocoileus).....	48	41
columbianus. (Odontocelus).....	48
columbianus. (Oreamnus m.).....	52
columbianus. (Oreamnos m.).....	52
columbianus. (Perodipus o.).....	297	238
columbianus. (Perognathus).....	308	256
columbianus. (Perognathus l.).....	308	250
columbianus. (Spermophilus).....	111	91
columbiensis. (Lepus a.).....	361	275
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compactus. (Dipodomys).....	299	240
compactus. (Perodipus).....	299	240
compressicauda. (Phocæna).....	31	56	29
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concolor. (Felis).....	369	293
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<i>Conepatus mapurito</i>	412	516	510
<i>Conepatus mesoleucus</i>	411	515
<i>Conepatus m. mearnsi</i>	411	516
<i>Conepatus pediculus</i>	412	517	.....
<i>Conepatus sonoriensis</i>	411	514	.....
<i>Conepatus tropicalis</i>	412	517	.....
<i>confinis.</i> (<i>Lepus a.</i>)	350	424	.....
<i>connectens.</i> (<i>Lepus f.</i>)	343	.....	.....
<i>consobrinus.</i> (<i>Peromyscus m.</i>)	166	202	.....
<i>consobrinus.</i> (<i>Tamias m.</i>)	93	.....	78
<i>constabiei.</i> (<i>Phenacomys</i>)	228	.....	169
<i>constablii.</i> (<i>Phenacomys</i>)	228	.....	.....
<i>constrictus.</i> (<i>Microtus c.</i>)	241	.....	186
<i>convexum.</i> (<i>Uroderma</i>)	524	697	.....
<i>cookii.</i> (<i>Rosmarus</i>)	439	.....	358
<i>coolidgei.</i> (<i>Peromyscus l.</i>)	147	.....	.....
<i>coolidgei.</i> (<i>Peromyscus t.</i>)	147	187	.....
<i>cooperi.</i> (<i>Sorex</i>)	446	.....	366
<i>cooperi.</i> (<i>Synaptomys</i>)	255	.....	203
<i>cooperi.</i> (<i>Tamias</i>)	86	.....	69
<i>copei.</i> (<i>Balaenoptera v.</i>)	19	.....	13
<i>copei.</i> (<i>Perognathus</i>)	301	.....	243
<i>Corsira tropicalis</i> .....	.....	559	.....
<i>coryi.</i> (<i>Artibeus</i>)	522	693	.....
<i>coryi.</i> (<i>Felis</i>)	369	.....	293
<i>Corynorhinus</i>	490	603	398
<i>Corynorhinus macrotis</i>	490	.....	399
<i>Corynorhinus m. pallescens</i>	490	604	399
<i>Corynorhinus m. townsendi</i>	491	604	400
<i>costaricensis.</i> (<i>Blarina</i>)	461	.....	382
<i>costaricensis.</i> (<i>Felis</i>)	366	448	.....
<i>costaricensis.</i> (<i>Felis b.</i>)	370	456	.....
<i>costaricensis.</i> (<i>Macrogeomys</i>)	271	330	.....
<i>costaricensis.</i> (<i>Odocoileus</i>)	46	73	.....
<i>costaricensis.</i> (<i>Odontocelus</i>)	46	73	.....
<i>costaricensis.</i> (<i>Oryzomys</i>)	189	249, 250	.....
<i>costaricensis.</i> (<i>Reithrodontomys</i>)	200	267	.....
<i>costaricensis.</i> (<i>Rhithrodontomys</i>)	200	266, 267	.....
<i>couchii.</i> (<i>Spermophilus</i>)	113	149	188
<i>couesi.</i> (<i>Cariacus a.</i>)	45	70	40
<i>couesi.</i> (<i>Erethizon e.</i>)	332, 333	.....	265
<i>couesi.</i> (<i>Hesperomys</i>)	186	236	.....
<i>couesi.</i> (<i>Odocoileus a.</i>)	45	70	40
<i>couesi.</i> (<i>Odontocelus a.</i>)	45	70, 71	.....
<i>couesi.</i> (<i>Oryzomys</i>)	186	236, 239	.....
<i>cougar.</i> (<i>Felis</i>)	369	.....	.....
<i>cozumelæ.</i> (<i>Didelphis y.</i>)	5	15
<i>cozumelæ.</i> (<i>Didelphys y.</i>)	5	15
<i>cozumelæ.</i> (<i>Oryzomys</i>)	182	241

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cozumelæ. (<i>Peromyscus</i>)	162	181
crassidens. (<i>Phocæna</i>)	27	51	23
crassidens. (<i>Pseudorca</i>)	27	51	23
crassum. (<i>Tagassu</i> a.)	36	64	.....
crassus. (<i>Phenacomys</i> c.)	227, 228	.....	†430
crassus. (<i>Tayassu</i> a.)	36	64	.....
<i>Cratogeomys</i>	264	311	220
<i>Cratogeomys castanops</i>	266	315	220
<i>Cratogeomys c. goldmani</i>	266	316	.....
<i>Cratogeomys estor</i>	265	314	.....
<i>Cratogeomys fulvescens</i>	266	316	.....
<i>Cratogeomys merriami</i>	265	313	.....
<i>Cratogeomys oreocetes</i>	265	314	.....
<i>Cratogeomys peregrinus</i>	265	314	.....
<i>Cratogeomys perotensis</i>	265	313	.....
crawfordi. (<i>Notiosorex</i>)	459	554	385
crawfordi. (<i>Sorex</i>)	459	554	385
cremnobates. (<i>Ovis</i> c.)	54	84	.....
creper. (<i>Reithrodontomys</i>)	204	272	.....
creper. (<i>Rhithrodontomys</i>)	204	272	.....
crepuscularis. (<i>Nycticea</i>)	488	598	415
Cricetinae	130	.....	119
<i>Cricetodipus</i>	300	352	241
<i>Cricetodipus flavus</i>	302	.....	243
<i>Cricetodipus parvus</i>	306	.....	247
<i>Cricetus</i>	119	.....	.....
<i>Cricetus myoides</i>	140	.....	125
<i>Cricetus talpoides</i>	278	.....	227
crinitus. (<i>Hesperomys</i>)	159	.....	140
crinitus. (<i>Oryzomys</i>)	183	245	.....
crinitus. (<i>Peromyscus</i> t.)	159	.....	140
crispus. (<i>Heteromys</i>)	320	380	.....
crispus. (<i>Liomys</i>)	320	380	.....
crispus. (<i>Myrmecophaga</i>)	10	27	.....
cristata. (<i>Condylura</i>)	467	.....	395
cristata. (<i>Cystophora</i>)	440	.....	360
cristata. (<i>Dasyprocta</i>)	337	407	.....
cristata. (<i>Phoca</i>)	440	.....	360
cristatus. (<i>Echinomys</i>)	328	383	.....
cristatus. (<i>Sorex</i>)	467	.....	395
cristobalensis. (<i>Peromyscus</i> z.)	170	209	.....
crooki. (<i>Dorcelaphus</i>)	47	.....	41
crooki. (<i>Odocoileus</i>)	47	.....	41
crooki. (<i>Odontocelus</i>)	47	.....	.....
crotaphiscus. (<i>Delphinus</i>)	33	.....	31
crotaphiscus. (<i>Prodelphinus</i>)	33	.....	31
crusnigrum. (<i>Tagassu</i>)	36	65
crusnigrum. (<i>Tayassu</i>)	36	65
cryptopilotus. (<i>Citellus</i>)	101	144

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cubanus. (Monophyllus)	519	678
cubanus. (Nycticeius h.)	488	599
cubanus. (Solenodon)	472	567
cubanus. (Vesperus)	488	599	.....
cubensis. (Scotophilus)	484	588	.....
cubensis. (Vespertilio f.)	484	588	.....
cucullata. (Phoca)	440	.....	360
Cuica	2	5	.....
cumberlandius. (Geomys)	262	.....	217
cumulator. (Neotoma)	205	280	154
Cuniculus	260	.....	209
cupes. (Ochotona)	339	.....	268
cupreata. (Talpa)	470	.....	388
curtata. (Arvicola)	247	.....	195
curtatus. (Microtus)	247	.....	195
curvirostris. (Delphinus d.)	31	55	28
Cutia	335	403	.....
cuvieri. (Grampus)	28	.....	25
Cuvierius	18	42	11
Cyclopes	10	24	.....
Cyclopes dorsalis	10	25	.....
Cyclothurus	10	25	.....
Cyclothurus dorsalis	10	25	.....
cymodoce. (Delphinus)	31	56	29
cynocephala. (Nycticea)	500	.....	417
cynocephalus. (Nyctinomus)	500	.....	417
Cynomyanax	425	.....	.....
Cynomyonax	423	530	338, 341
Cynomys	117	.....	102
Cynomys arizonensis	118	.....	103
Cynomys grisea	117	.....	102
Cynomys gunnisoni	118	.....	103
Cynomys leucurus	118	.....	104
Cynomys lewisi	118	.....	104
Cynomys ludovicianus	117	.....	102
Cynomys mexicanus	119	156	.....
Cynomys parvidens	118	.....	.....
Cynomys pyrrotrichus	117	.....	.....
Cynomys socialis	117	.....	102
Cystophora	440	.....	360
Cystophora borealis	440	.....	360
Cystophora cristata	440	.....	360
Cystophorinae	439	.....	359
dacota. (Arctomys)	120	106
dakota. (Marmota)	120
dakotensis. (Sciurus h.)	81	62
dale. (Dauphindo)	23	18

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dalli. (<i>Lepus a.</i>)	361		275
dalli. (<i>Ovis</i>)	55		47
dalli. (<i>Ovis m.</i>)	55		
dalli. (<i>Phocæna</i>)	25		21
dalli. (<i>Synaptomys</i>)	258		206
dalli. (<i>Ursus</i>)	391		311
Dama		68	
Dama lichtensteini.	45	70	
Dama rothschildi	46	72	
Danis	390, 392	479	309
Dasynotus	316	368	
Dasypodidæ	12	31	4
Dasypodinae	12	31	
Dasyprocta	335	403	
Dasyprocta antillensis	337	407	
Dasyprocta callida	336	406	
Dasyprocta coibæ	336	407	
Dasyprocta cristata	337	407	
Dasyprocta isthmica	336	407	
Dasyprocta mexicana	336	405	
Dasyprocta punctata	336	405	
Dasyprocta ruatanica	336	405	
Dasypterus	487	595	414
Dasypterus e. panamensis	487	597	
Dasypterus e. xanthinus	487	597	
Dasypterus floridanus	488		
Dasypterus intermedius	487, 488	595	414
Dasypus longicaudus	13	33	4
Dasypus m. fenestratus	13	33	4
Dasypus novemcinctus	13	32, 33	4
Dasypus octo-cinctus	13	33	4
Dasypus peba	13	33	4
Dasypus unicinctus	12	31	
Dauphindo dale	23		18
davidsoni. (<i>Balænoptera</i>)	19	42	12
davyi. (<i>Dermonotus</i>)	506	644	
davyi. (<i>Pteronotus</i>)	506	644	
dawsoni. (<i>Evotomys</i>)	229		172
dawsoni. (<i>Rangifer</i>)	40		36
Declidurus	494		
declivis. (<i>Beluga</i>)	25		20
decolorus. (<i>Nyctomys</i>)	172	216	
decolorus. (<i>Sitomys</i>)	172	216	
decumanus. (<i>Mus</i>)	129	164	117
decurtata. (<i>Arvicola</i>)	247		
decussatus. (<i>Canis</i>)	380		304
deductor. (<i>Delphinus</i>)	27	52	23
degener. (<i>Lutra</i>)	435		353
dekayi. (<i>Arvicola</i>)	235		180
dekayi. (<i>Sorex</i>)	461		382

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deletrix. (Vulpes)	381	305
Delphinapterinæ	24	48
Delphinapterus	24, 32	19, 29
Delphinapterus beluga	24, 25	.....	19
Delphinapterus borealis	32	.....	30
Delphinapterus leucas	25	.....	19
Delphinidæ	24	47, 48	18
Delphinus	30	54	27
Delphinus acutus	29	.....	25
Delphinus albimanus . . . . .	.....	55	28
Delphinus albirostris	29	.....	26
Delphinus algeriensis . . . . .	.....	55	28
Delphinus alope	33	58	.....
Delphinus anarnacus	21	.....	16
Delphinus bairdi	30	55	28
Delphinus balteatus	31	55	28
Delphinus bidentatus	21	.....	16
Delphinus butskopf	21	.....	16
Delphinus canadensis	25	.....	19
Delphinus clymene	34	.....	32
Delphinus crotaphiscus	33	.....	31
Delphinus cymodoce	31	56	29
Delphinus deductor	25	52	23
Delphinus delphis	30	54	28
Delphinus d. curvirostris	31	55	28
Delphinus doris	34	.....	32
Delphinus dubius	32	.....	30
Delphinus epidon	23	.....	18
Delphinus eschrichti	29	.....	25
Delphinus euphrosyne	33	58	30
Delphinus eurynome	31, 34	56	29
Delphinus forsteri	30	55	28
Delphinus frenatus	34	.....	32
Delphinus frontalis	34	.....	32
Delphinus fulvi-fasciatus	30	54	28
Delphinus fulvo-fasciatus	30	54	28
Delphinus fuscus	31	55	28
Delphinus gladiator	26	51	22
Delphinus globiceps	27	52	23
Delphinus griseus	28	.....	25
Delphinus hunteri	21	.....	16
Delphinus hyperoodon	21	.....	16
Delphinus ibsenii	29	.....	26
Delphinus intermedius	27, 28	52	23, 25
Delphinus janira	30	55	28
Delphinus leucas	25	.....	19
Delphinus leucopleurus	29	.....	25
Delphinus longidens	30	27
Delphinus longirostris	33	58
Delphinus major	30	55	28

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<i>Delphinus marginatus</i>	34	58	30
<i>Delphinus melas</i>	27	52
<i>Delphinus metis</i>	31	56	29
<i>Delphinus microps</i>	31, 33	55, 58	28
<i>Delphinus micropterus</i>	23	.....	18
<i>Delphinus moorii</i>	30	55	28
<i>Delphinus moschatus</i>	31	55	28
<i>Delphinus novæ-zelandiæ</i>	30	55	28
<i>Delphinus orca</i>	26	50, 51	.....
<i>Delphinus peronii</i>	32	.....	29
<i>Delphinus phocaena</i>	25	48	20
<i>Delphinus plagiodon</i>	33	58	31
<i>Delphinus pomeegra</i>	30	55	28
<i>Delphinus rissoanus</i>	28	.....	25
<i>Delphinus sowerbianus</i>	31	55	28
<i>Delphinus sowerbiensis</i>	23	.....	18
<i>Delphinus sowerbyi</i>	23	.....	18
<i>Delphinus stenorhynchus</i>	33	58	.....
<i>Delphinus styx</i>	33	58	30
<i>Delphinus tethyos</i>	34	58	30
<i>Delphinus truncatus</i>	31	56	29
<i>Delphinus tursio</i>	31	55	29
<i>Delphinus variegatus</i>	31	55	28
<i>Delphinus walkeri</i>	30	55	28
<i>delphis. (Delphinus)</i>	30	54	28
<i>deppei. (Sciurus)</i>	60, 61	101, 102	.....
<i>deppii. (Sciurus)</i>	60	101	.....
<i>depressus. (Nyctinomops)</i>	499	627	.....
<i>depressus. (Nyctinomus)</i>	499	627	.....
<i>derbianus. (Caluromys)</i>	4	9	.....
<i>derbianus. (Didelphys)</i>	4	9	.....
<i>Dermanura</i>	525	699	.....
<i>Dermanura cinereum</i>	525	699	.....
<i>Dermanura eva</i>	524	697	.....
<i>Dermanura phæotis</i>	525	699	.....
<i>Dermonotus</i>	506	644	.....
<i>Dermonotus davyi</i>	506	644	.....
<i>Dermonotus d. fulvus</i>	506	646	.....
<i>deserti. (Dipodomys)</i>	292	345	235
<i>deserti. (Reithrodontomys m.)</i>	193	259	151
<i>deserticola. (Lepus t.)</i>	356, 357	437	291
<i>deserticola. (Peromyscus l.)</i>	140	188	.....
<i>deserticola. (Peromyscus t.)</i>	140	188	.....
<i>deserticolus. (Hesperomys l.)</i>	140	188	.....
<i>deserticolus. (Peromyscus a.)</i>	140	188	125
<i>desertorum. (Neotoma)</i>	215	.....	161
<i>desertorum. (Thomomys)</i>	281	.....	.....
<i>desmaresti. (Moschophoromys)</i>	190	250, 251
<i>desmaresti. (Mus)</i>	189, 190	250
<i>desmaresti. (Phoca)</i>	444	364

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desmarestianus. (Heteromys)	318	372
Desmodon.....	530
Desmodon rotundum.....	530
Desmodontinae.....	530	718
Desmodus.....	530	718	.....
Desmodus d'orbignyi.....	530	718	.....
Desmodus fuscus.....	530	719	.....
Desmodus murinus.....	530	719	.....
Desmodus rotundus.....	530	718	.....
Desmodus rufus.....	530	718	.....
destructor. (Lutra) .....	.....	.....	352
destructor. (Orca)	27	51	23
devius. (Oryzomys).....	188	244	.....
diazi. (Lepus).....	.....	412	.....
dickinsoni. (Reithrodontomys h.).....	192	.....	.....
dickinsoni. (Reithrodontomys l.).....	192	.....	150
dickinsoni. (Rhithrodontomys l.).....	192	.....	.....
Diclidurus.....	494	614	.....
Diclidurus albus.....	494	615	.....
Diclidurus freyreissii.....	494	615	.....
Diclidurus virgo.....	494	615	.....
Dicotyles.....	36	65	33
Dicotyles.....	35	62	33
Dicotyles angulatus.....	35	63	.....
Dicotyles a. sonoriensis.....	36	64	.....
Dicotyles labiatus.....	37	66	.....
Dicotyles tajacu.....	35	.....	33
Dicotylidæ.....	.....	.....	33
Dicranocerus.....	51	81	43
Dicrostonyx.....	260	.....	209
Dicrostonyx hudsonius.....	260	.....	209
Dicrostonyx h. alascensis.....	260, 261	.....	210
Dicrostonyx h. nelsoni.....	261	.....	210
Dicrostonyx h. richardsoni.....	261	.....	211
Dicrostonyx h. unalascensis.....	260	.....	210
Dicrostonyx nelsoni.....	260	.....	210
Dicrostonyx richardsoni.....	261	.....	211
Dicrostonyx unalascensis.....	260	.....	210
Didactyla.....	10	25	.....
didactyla. (Myrmecophaga).....	10	24	.....
Didactyles.....	10	25	.....
didactylus. (Bradypus).....	9	19	.....
Didelphis.....	5	14	.....
Didelphis californica.....	6	15	.....
Didelphis canescens.....	2	6	.....
Didelphis c. caucæ.....	.....	18	.....
Didelphis cinerea.....	3	7
Didelphis dorsigera.....	2
Didelphis k. caucæ.....	8
Didelphis marsupialis.....	5	14

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<i>Didelphis m. battyi</i>	7	17
<i>Didelphis m. caucae</i>		14, 18
<i>Didelphis m. etensis</i>	8	18
<i>Didelphis m. insularis</i>	7	17
<i>Didelphis m. tabascensis</i>	6	.....	.....
<i>Didelphis m. texensis</i>	6	16	.....
<i>Didelphis memina</i>	1	3	.....
<i>Didelphis mesamericana</i>	6	15	.....
<i>Didelphis m. tabascensis</i>	6	16	.....
<i>Didelphis m. texensis</i>	6	16	.....
<i>Didelphis murina</i>	2	4, 5	.....
<i>Didelphis myosurus</i>	4	.....	.....
<i>Didelphis philander</i>	4	9	.....
<i>Didelphis richmondi</i>	8	16	.....
<i>Didelphis virginiana</i>	7	.....	.....
<i>Didelphis v. pigra</i>	7	.....	I
<i>Didelphis yucatanensis</i>	5	14	.....
<i>Didelphis y. cozumelæ</i>	5	15	.....
<i>Didelphyidæ</i>	1	1	I
<i>Didelphys</i>	5, 7	13	I
<i>Didelphys aurita</i>	8	17	.....
<i>Didelphys californica</i>	6	.....	3
<i>Didelphys cayopollin</i>	2	.....	.....
<i>Didelphys cinerea</i>	3	.....	.....
<i>Didelphys cinereus</i>	4	9	.....
<i>Didelphys derbianus</i>	4	9	.....
<i>Didelphys impavida</i>	2	.....	.....
<i>Didelphys macrotarsus</i>	2	.....	.....
<i>Didelphys marsupialis</i>	7	.....	.....
<i>Didelphys m. battyi</i>	7	17	.....
<i>Didelphys m. etensis</i>	8	18	.....
<i>Didelphys m. insularis</i>	7	17	.....
<i>Didelphys m. texensis</i>	6	.....	.....
<i>Didelphys mesamericana</i>	6	15, 16, 17	.....
<i>Didelphys m. tabascensis</i>	6	16	.....
<i>Didelphys m. texensis</i>	6	16	.....
<i>Didelphys microtarsus</i>	2	.....	.....
<i>Didelphys murinus</i>	2	.....	.....
<i>Didelphys musculus</i>	2	.....	.....
<i>Didelphys nudicaudata</i>	4	11	.....
<i>Didelphys quica</i>	5	12	.....
<i>Didelphys richmondi</i>	8	16	.....
<i>Didelphys virginiana</i>	7	.....	I
<i>Didelphys v. pigra</i>	7	.....	I
<i>Didelphys yucatanensis</i>	5	14, 15	.....
<i>Didelphys y. cozumelæ</i>	5	15	.....
<i>difficilis</i> . (<i>Peromyscus</i>).....	158	193	.....
<i>difficilis</i> . (<i>Reithrodontomys</i>).....	197	263
<i>difficilis</i> . (<i>Rhithrodontomys</i>).....	197	263
<i>difficilis</i> . (<i>Vesperimus</i>).....	158	193

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dilatus. (Scapanus)	468	392
dilutior. (Oryzomys c.)	186	238
dimidiatus. (Callocephalus)	444	364
Dinops	499	628	416
Diodon	24	.....	18
Dionyx	10	25	.....
Diphylla	530	720	.....
Diphylla centralis	531	741	.....
Diphylla ecaudata	530, 531	720	.....
Diplostoma	261, 271	332	221
Diplostoma bulbivorum	272	.....	.....
Diplostoma fusca	262	.....	217
Dipodomys	288	341	231
Dipodomys	288	341	231
Dipodomys agilis	293	351	236
Dipodomys ambiguus	289	.....	234
Dipodomys californicus	291	.....	236
Dipodomys c. pallidulus	292	.....	†431
Dipodomys chapmani	297	350	237
Dipodomys compactus	299	.....	240
Dipodomys deserti	292	345	235
Dipodomys d. helleri	292	.....	.....
Dipodomys elator	292	.....	235
Dipodomys hermanni	293	.....	236
Dipodomys merriami	288	345	232
Dipodomys m. ambiguus	289	.....	234
Dipodomys m. arenivagus	290	347	.....
Dipodomys m. atronasus	290	348	.....
Dipodomys m. exilis	289	.....	233
Dipodomys m. melanurus	291	348	.....
Dipodomys m. mortivallis	290	.....	.....
Dipodomys m. nevadensis	288	.....	232
Dipodomys m. nitratoides	288	.....	233
Dipodomys m. nitratus	288	.....	233
Dipodomys m. parvus	289	.....	234
Dipodomys m. similis	289	.....	234
Dipodomys m. simiolus	289, 290	.....	234
Dipodomys mitchelli	291	344	.....
Dipodomys montanus	295	.....	.....
Dipodomys ordii	296	.....	.....
Dipodomys ornatus	291	344	.....
Dipodomys parvus	289	.....	234
Dipodomys perotensis	291	344	.....
Dipodomys phillipsi	288, 291	343	231
Dipodomys similis	289	.....	234
Dipodomys simiolus	289	234
Dipodomys spectabilis	293	345	235
Dipodomys wagneri	293	236
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Dipodops o. palmeri.....	296
Dipodops richardsoni.....	297	238
Dipodops sennetti.....	297	239
Dipus.....	324	.....	.....
Dipus americanus.....	325	.....	259
Dipus canadensis.....	324	257
Dipus hudsonius.....	323, 324	257
Dipus labradorius.....	324	257
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discifera. (Thyroptera).....	503	637
discolor. (Callocephalus).....	444	364
discolor. (Felis).....	293
dispar. (Neotoma f.).....	206	.....	160
dispar. (Perognathus c.).....	315	.....	255
distincta. (Neotoma).....	207	278	.....
divergens. (Trichechus).....	439	.....	358
dobsoni. (Sorex).....	448	.....	370
dobsoni. (Sorex v.).....	448	.....	370
dolichocephalus. (Macrogeomys).....	270	328	.....
dominicensis. (Myotis).....	475	576	.....
d'orbigny. (Desmodus).....	530	718	.....
Dorcelaphus.....	43	68	.....
Dorcelaphus crooki.....	47	.....	41
Dorcelaphus h. eremicus.....	49	77	.....
Dorcelaphus texanus.....	45	70	40
doreides. (Tursio).....	34	58	30
doris. (Delphinus).....	34	.....	32
dorsalis. (Cyclopes).....	10	25	.....
dorsalis. (Cyclothurus).....	10	25	.....
dorsalis. (Reithrodontomys).....	203	272	.....
dorsalis. (Rhithrodontomys).....	203	272	.....
dorsalis. (Sciurus).....	66, 76	127	57
dorsalis. (Sciurus a.).....	76	127
dorsalis. (Tamias).....	85	135	68
dorsata. (Hystrix).....	333
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dorsatus. (Erethizon).....	334	264
dorsatus. (Hystrix).....	332	397	264
dorsatus. (Noctilio).....	494	617
dorsiger. (Grymæomys).....	2	.....	.....
dorsigera. (Didelphis).....	2	.....	.....
douglasi. (Citellus v.).....	115	.....	.....
douglasi. (Lepus).....	415
douglasi. (Sciurus).....	82	65
douglasi. (Spermophilus g.).....	115	89
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douglasii. (Arctomys).....	115	89
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dowi. (Tapirella)	56	88
dowii. (Elasmognathus)	58	88
drummondi. (Arvicola)	236	181
drummondi. (Microtus)	236, 237	.....	181
drummondi. (Myoxus)	220, 221	.....	.....
drummondi. (Neotoma c.)	221	.....	164
drummondi. (Teonoma c.)	221	.....	.....
dubius. (Delphinus)	32	.....	30
dubius. (Hippocamelus)	50	.....	.....
dubius. (Peromyscus)	162	181	.....
dugong. (Hydrodamalis) .....	.....	36	.....
duguidii. (Physalus)	19	.....	13
durangæ. (Eutamias)	88	.....	.....
durangæ. (Lepus)	345	424	.....
durangæ. (Myotis c.)	478	579	.....
durangæ. (Neotoma i.)	217	285	.....
durangæ. (Tamias)	88	137	.....
durangi. (Sciurus)	67	112	.....
durangi. (Sciurus a.)	67	.....	.....
dutcheri. (Microtus)	239	.....	185
dutertreus. (Vespertilio)	484	588	.....
dychei. (Reithrodontomys)	194	.....	.....
dychii. (Rhithrodontomys)	192	150
dyselius. (Peromyscus)	156	138
Dysopes.....	495, 499	619, 628	416
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Dysopes alecto.....	495	619
Dysopes aurispinosus.....	499	627
Dysopes auritus.....	499	627
Dysopes cæcus.....	.....	627	.....
Dysopes fumarius.....	495	620	.....
Dysopes glaucinus.....	497	623	.....
Dysopes gracilis.....	498	626	.....
Dysopes holosericeus.....	495	619	.....
Dysopes laticaudatus.....	499	627	.....
Dysopes leucopleura.....	497	623
Dysopes longimanus.....	497	623
Dysopes naso.....	417
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ecaudata. (Diphylla)	530, 531	720
ecaudatus. (Rhinolophus)	530	718
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Echinomys centralis.....	329	386

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Echinoprocta.....	332	397	264
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Echinothrix.....	332	397
Ectophylla.....	528	709
Ectophylla alba.....	528	710
edax. (Arvicola).....	241	187
edax. (Microtus).....	241	187
Edentata.....	9	19	4
Edostoma cinerea.....	530	718
edwardsi. (Lepus).....	368
effugius. (Sciurus a.).....	72	120
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Elasmognathus dowii.....	58	88
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elassodon. (Sorex o.).....	450
elator. (Dipodomys).....	292	235
elegans. (Capromys).....	331	392
elegans. (Citellus).....	113	145
elegans. (Felis).....	367	449
elegans. (Spermophilus).....	113	94
elibatus. (Perognathus).....	304
elongata. (Mephitis).....	406	324
elongata. (Mephitis m.).....	406
elongata. (Phyllostoma).....	513	662
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Emballonura lineata.....	492	609
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emmonsii. (Ursus).....	397	315
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energumenus. (Putorius v.).....	424	340
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Enhydra.....	435	537	354
enixus. (Microtus).....	237	182
entomophaga. (Saimiris).....	534	731
Enydris gracilis.....	436	537	354
Eozapus.....	324	257
epidon. (Delphinus).....	23	18
epixanthum. (Erethizon).....	332	397
epixanthus. (Erethizon).....	332	265
Eptesicus.....	482	585	410
Eptesicus f. bernardinus.....	483

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<i>Eptesicus f. osceola</i>	483
<i>Eptesicus melanops</i>	483	587	410
<i>equestris</i> . (<i>Phoca</i>).....	442	362
<i>Equus bisulcus</i>	50	.....	.....
<i>eremica</i> . (<i>Felis r.</i>).....	372	458	298
<i>eremicoides</i> . (<i>Peromyscus a.</i>).....	154	192	.....
<i>eremicus</i> . (<i>Dorcelaphus h.</i>).....	49	77	.....
<i>eremicus</i> . (<i>Hesperomys</i>).....	136	191	136
<i>eremicus</i> . (<i>Lepus t.</i>).....	355, 357	435	291
<i>eremicus</i> . (<i>Lynx r.</i>).....	372	458	298
<i>eremicus</i> . (<i>Odontocelus h.</i>).....	49, 50	77	.....
<i>eremicus</i> . (<i>Perognathus</i>).....	311	.....	253
<i>eremicus</i> . (<i>Perognathus p.</i>).....	311	359	253
<i>eremicus</i> . (<i>Peromyscus</i>).....	136	191	136
<i>eremicus</i> . (<i>Sigmodon h.</i>).....	176	227	145
<i>eremicus</i> . (<i>Ursus a.</i>).....	394	.....	.....
<i>Eremiomys</i>	234	299	178
<i>eremonomus</i> . (<i>Citellus</i>).....	101	.....	.....
<i>Erethizon</i>	332	397	264
<i>Erethizon dorsatum</i>	333	.....	.....
<i>Erethizon d. picinum</i>	334	.....	.....
<i>Erethizon dorsatus</i>	334	.....	264
<i>Erethizon d. picinus</i>	334	.....	†431
<i>Erethizon epixanthum</i>	332	397	.....
<i>Erethizon e. couesi</i>	333	.....	.....
<i>Erethizon e. myops</i>	333	.....	.....
<i>Erethizon e. nigrescens</i>	333	.....	.....
<i>Erethizon epixanthus</i>	332	.....	265
<i>Erethizon e. couesi</i>	332	.....	265
<i>Erethizon e. myops</i>	333	.....	266
<i>Erethizon e. nigrescens</i>	333	.....	.....
<i>Erethizontidæ</i>	332	397	264
<i>Erethizontinæ</i>	332	397	264
<i>Erignathus</i>	441	541	361
<i>Eriodes frontatus</i>	535	733	.....
<i>erminea</i> . (<i>Mustela</i>).....	430	.....	.....
<i>erythrodactylus</i> . (<i>Vespertilio</i>).....	481	.....	409
<i>erythroglutæus</i> . (<i>Citellus</i>).....	108	.....	.....
<i>erythrogluteia</i> . (<i>Arctomys p.</i>).....	108	.....	91
<i>erythrogluteius</i> . (<i>Citellus</i>).....	108	.....	.....
<i>erythromos</i> . (<i>Phyllostoma</i>).....	529	715	.....
<i>eschrichti</i> . (<i>Delphinus</i>).....	29	.....	25
<i>escuinapæ</i> . (<i>Felis r.</i>).....	372, 373	456	.....
<i>escuinapæ</i> . (<i>Lynx r.</i>).....	372	.....	.....
<i>eskimo</i> . (<i>Putorius r.</i>).....	428	345
<i>estor</i> . (<i>Canis</i>).....	378	469	302
<i>estor</i> . (<i>Cratogeomys</i>).....	265	314
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etensis. (<i>Didelphis m.</i>)	8	18
etensis. (<i>Didelphys m.</i>)	8	18
Euarctos	390	479	309
Euarctus	394	313
Eubalæna	15	.....	7
Eubalæna australis	15	.....	8
Eucervus	43	68	.....
Eucritus	334	.....	.....
Eudelphinus	30	54	27
Euderma	490	.....	398
Euderma maculata	490	.....	398
Euderma maculatum	490	.....	.....
eulophus. (<i>Ursus</i>)	392	.....	.....
Eumetopias	437	.....	555
Eumetopias jubata	437	.....	.....
Eumetopias stelleri	437	.....	355
Euotaria	438	.....	.....
euphrosinoides. (<i>Clymenia</i>)	34	59	30
euphrosyne. (<i>Delphinus</i>)	33	58	30
euphrosyne. (<i>Prodelphinus</i>)	34	58	30
Euprocyon	400, 402	492	.....
europæus. (<i>Orca</i>)	26	51	22
eurynome. (<i>Delphinus</i>)	31, 34	56	29
Eurypterna	10	25	.....
Eutamias	85	134	68
Eutamias adsitus	95	.....	.....
Eutamias a. operarius	†541	.....	.....
Eutamias canescens	86	.....	.....
Eutamias canicaudus	93	.....	.....
Eutamias caniceps	93	.....	.....
Eutamias caurinus	90	.....	.....
Eutamias c. canipes	91	.....	.....
Eutamias d. utahensis	85	.....	.....
Eutamias durangæ	88	.....	.....
Eutamias hopenensis	†541	.....	.....
Eutamias lectus	94	.....	.....
Eutamias oreocetes	95	.....	.....
Eutamias palmeri	86	.....	.....
Eutamias s. inyoensis	89	.....	.....
Eutamias t. ochrogenys	87	.....	.....
eva. (<i>Artibeus</i>)	524	697	.....
eva. (<i>Dermanura</i>)	524	697	.....
eva. (<i>Peromyscus</i>)	165	198	.....
evides. (<i>Peromyscus s.</i>)	156	170	.....
evotis. (<i>Myotis</i>)	474	574	.....
evotis. (<i>Notiosorex c.</i>)	460	555
evotis. (<i>Sorex</i>)	460	555
evotis. (<i>Vespertilio</i>)	474	574

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Evotomys alascensis.	229		177
Evotomys breviceaudus	231		174
Evotomys californicus.	232		176
Evotomys carolinensis.	231		174
Evotomys caurinus.	229		171
Evotomys dawsoni.	229		172
Evotomys d. alascensis.	229		
Evotomys fuscordorsalis.	230		172
Evotomys galei.	231		173
Evotomys gapperi	230		172
Evotomys g. breviceaudus.	231		
Evotomys g. galei.	231		173
Evotomys g. galii.	231		
Evotomys g. loringi	231		173
Evotomys g. ochraceus.	230		172
Evotomys g. rhoadsi	230		173
Evotomys g. saturatus.	231		174
Evotomys idahoensis.	232		175
Evotomys mazama.	232		175
Evotomys nivarius.	233		177
Evotomys obscurus	232		176
Evotomys occidentalis.	233		176
Evotomys orca.	230		172
Evotomys proteus	233		177
Evotomys rutilus.	229, 230		170
Evotomys ungava.	232		175
Evotomys wrangeli.	229		171
excisum. (<i>Phyllostoma</i>)	529	715	
exiguus. (<i>Heteromys</i>)	321	377	
exiguus. (<i>Peromyscus</i>)	148	183	
exilipes. (<i>Blarina</i>)	463		384
exilis. (<i>Dipodomys m.</i>)	289		233
exilis. (<i>Vespertilio</i>)	476	578	403
eximius. (<i>Blarina</i>)	463		384
eximius. (<i>Microsorex</i>)	457		
eximius. (<i>Sorex</i>)	457		
extimus. (<i>Sciurus c.</i>)	80		55
eyra. (<i>Felis</i>)	368	453	295
falcatum. (<i>Phyllops</i>)	527	708	
falcatus. (<i>Arctibeus</i>)	527	707	
falcatus. (<i>Phyllops</i>)	527	707	
Falcifer	12	29	
Falcifer jubata	12	29	
fallax. (<i>Artibeus</i>)	524	695	
fallax. (<i>Geomys p.</i>)	264		220
fallax. (<i>Neotoma</i>)	216		161
fallax. (<i>Perognathus</i>)	314	366	254

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familiaris. (Canis)	374	464
fannini. (Ovis)	55	†425
fasciata. (Felis r.)	371	297
fasciata. (Phoca)	441	362
fasciatus. (Lynx)	371	.....	297
fasciatus. (Perognathus)	300, 309	.....	242, 251
fatuus. (Synaptomys)	256	.....	204
Felidæ	365	442	293
felipensis. (Conepatus)	412	517	.....
felipensis. (Neotoma b.)	218	286	.....
felipensis. (Peromyscus)	167	205	.....
Felis	365, 369	443	293
Felis apache	368	.....	.....
Felis a. browni	369	.....	.....
Felis b. costaricensis	370	456	.....
Felis brasiliensis	367	449	.....
Felis cacomitli	367	.....	.....
Felis canadensis	370	.....	295
Felis c. mollipilosa	370	.....	295
Felis c. subsolana	370	.....	296
Felis carrikeri	366	448	.....
Felis catus	365	443	.....
Felis centralis	365	.....	.....
Felis chati	367	449	.....
Felis concolor	369	293	293
Felis c. floridana	369	.....	293
Felis c. oregonensis	369	454	294
Felis coryi	369	.....	293
Felis costaricensis	366	.....	.....
Felis cougar	369	.....	.....
Felis discolor .....	.....	.....	293
Felis elegans	367	449	.....
Felis eyra	368	453	295
Felis e. apache	368	453	.....
Felis floridana .....	.....	.....	293
Felis fossata	368	453	.....
Felis gigas	373	.....	299
Felis glaucula	367	450	.....
Felis hernandezi .....	.....	.....	294
Felis h. goldmani	366	.....	.....
Felis hippolestes	369	454	294
Felis h. aztecus	369	454	.....
Felis h. olympus	369	454	294
Felis jaguarondi	367	451	295
Felis j. cacomitli	367	451	.....
Felis j. tolteca	368	452
Felis macroura	367	449
Felis maculata	371, 372	296
Felis mexicana	294

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<i>Felis mitis</i>	367	449
<i>Felis onca</i>	365	294
<i>Felis o. centralis</i>	365	446
<i>Felis o. goldmani</i>	366	447
<i>Felis o. hernandezi</i>	365, 366	446	.....
<i>Felis panamensis</i>	368	452	.....
<i>Felis pardalis</i>	366	447	294
<i>Felis p. mearnsi</i>	366	448	.....
<i>Felis p. oncilla</i>	367	450	.....
<i>Felis peninsularis</i>	373	460	.....
<i>Felis pennsylvanica</i>	369	.....	.....
<i>Felis puma</i> .....	.....	.....	293
<i>Felis rufa</i>	370	.....	296
<i>Felis r. baileyi</i>	372	459	297
<i>Felis r. californica</i>	372	458	298
<i>Felis r. eremica</i>	372	458	298
<i>Felis r. escuinapæ</i>	372, 373	456	.....
<i>Felis r. fasciata</i>	371	.....	297
<i>Felis r. floridana</i>	372	.....	299
<i>Felis r. maculata</i>	371	.....	298
<i>Felis r. oclea</i>	371	.....	297
<i>Felis r. pallescens</i>	371	.....	297
<i>Felis r. texensis</i>	371	458	298
<i>Felis ruffa</i>	370	.....	.....
<i>Felis tigrina</i>	367	449	.....
<i>Felis uinta</i>	373	.....	.....
<i>Felix oregonensis</i>	369	.....	.....
<i>felix. (Tamias q.)</i>	92	.....	76
<i>femoralis. (Perognathus)</i>	314	367	254
<i>femorosaccus. (Nyctinomops)</i>	498	626	.....
<i>femorosaccus. (Nyctinomus)</i>	498	626, 628	417
<i>fenestratus. (Dasypus m.)</i>	13	33	4
<i>ferox. (Molossus)</i>	497	623	.....
<i>ferreus. (Sciurus a.)</i>	66	.....	.....
<i>ferruginea. (Neotoma)</i>	210, 211	280	.....
<i>ferrugineus. (Arvicola)</i>	175	.....	144
<i>ferruginiventris. (Sciurus)</i>	68	115	.....
<i>festinus. (Lepus)</i>	354	†746	.....
<i>fetidissima. (Mephitis)</i>	406	.....	.....
<i>Fiber</i>	252	307	211
<i>Fiber macrodon</i>	255	.....	214
<i>Fiber obscurus</i>	254	.....	214
<i>Fiber occipitalis</i>	254	.....	.....
<i>Fiber osoyoosensis</i>	252	.....	212
<i>Fiber spatulatus</i>	254	.....	214
<i>Fiber zibethicus</i>	252, 254	307	212
<i>Fiber z. aquilonius</i>	253	213
<i>Fiber z. hudsonius</i>	253
<i>Fiber z. pallidus</i>	253	308	213

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
Fiber z. ripensis	252	.....	.....
Fiber z. rivalicius.....	253	.....	213
fiber. (Castor).....	128	.....	115
fimbripes. (Sorex).....	446	.....	366
fisheri. (Citellus v.).....	114	150	.....
fisheri. (Microtus a.).....	243	.....	190
fisheri. (Sorex).....	454	.....	375
fisheri. (Spermophilus b.).....	114	.....	.....
fisheri. (Spermophilus g.).....	114	150	88
fisheri. (Thomomys d.).....	277	.....	.....
fisheri. (Thomomys f.).....	277	.....	.....
flaccidus. (Peromyscus t.).....	147	189	.....
flava. (Talpa).....	470	.....	388
flava. (Talpa e.).....	470	.....	388
flavescens. (Ariteus).....	527	707	.....
flavescens. (Perognathus).....	301	.....	243
flavescens. (Talpa e.).....	469	.....	388
flavescens. (Talpa f.).....	469	.....	388
flavidus. (Megadontomys).....	172	214	.....
flavigularis. (Lepus).....	353	431	288
flavigularis. (Lepus c.).....	†543	.....	.....
flaviventer. (Arctomys).....	120	.....	106
flaviventer. (Marmota).....	120	.....	.....
flavogularis. (Centurio).....	530	717	.....
flavus. (Bassariscus a.).....	398	485	316
flavus. (Cricetodipus).....	302	.....	243
flavus. (Perognathus).....	302	354	244
floridana. (Arvicola).....	209, 210	.....	.....
floridana. (Blarina).....	463	.....	385
floridana. (Felis).....	.....	.....	293
floridana. (Felis c.).....	369	.....	293
floridana. (Felis r.).....	372	.....	299
floridana. (Mus).....	205, 209	276	154, 157
floridana. (Neotoma).....	209	.....	157
floridana. (Pseudostoma).....	261	.....	215
floridanus. (Dasypterus).....	488	.....	.....
floridanus. (Geomys t.).....	261	.....	215
floridanus. (Hesperomys).....	156	.....	138
floridanus. (Lepus).....	342	.....	280
floridanus. (Lepus s.).....	340	.....	.....
floridanus. (Lynx).....	372	.....	.....
floridanus. (Oryzomys n.).....	181	.....	.....
floridanus. (Peromyscus).....	156	.....	138
floridanus. (Urocyon c.).....	386	.....	307
floridanus. (Ursus).....	395	.....	314
floweri. (Kogia).....	22	46	*479
fluviatilis. (Manatus).....	14	37	6
foetida. (Phoca).....	442, 443	363, 364
foetulenta. (Mephitis).....	408	326

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
fontigenus. (Microtus)	236	.....	181
fontigenus. (Microtus p.)	236	.....	181
formosus. (Perognathus)	308	.....	250
forsteri. (Delphinus)	30	55	28
forsteri. (Sorex)	446	.....	366
fossata. (Felis)	368	453	.....
fossor. (Blarina)	466	562	.....
fossor. (Sciurus)	78	130	55
fossor. (Thomomys)	287	.....	230
fournieri. (Capromys)	330	390	.....
franklini. (Citellus)	105	.....	.....
franklini. (Spermophilus)	105	.....	101
franklinii. (Arctomys)	105	.....	101
frantzii. (Atalapha)	486	594	.....
frater. (Tamias)	90	.....	73
fraterculus. (Peromyscus)	155	184	136
fraterculus. (Urocyon c.)	389	475	.....
fraterculus. (Vesperimus)	155	.....	136
frederici. (Phoca)	444	.....	364
fremonti. (Sciurus)	84	.....	66
frenata. (Mustela)	431	.....	350
frenatus. (Delphinus)	34	.....	32
frenatus. (Prodelphinus)	34	.....	32
frenatus. (Putorius)	431, 432	532	350
freyreissii. (Dielidurus)	494	615	.....
frondator. (Castor c.)	128	163	117
frontalis. (Delphinus)	34	.....	32
frontatus. (Eriodes)	535	733	.....
frumentor. (Sciurus a.)	69	117	.....
frustror. (Canis)	377	.....	302
fulgens. (Oryzomys)	183	240	.....
fuliginosa. (Chilonycteris)	504	641	.....
fuliginosa. (Chilonycteris m.)	504	†748	.....
fuliginosus. (Ateles)	534	733	.....
fuliginosus. (Molossus)	495	620	417
fuliginosus. (Onychomys)	134	.....	123
fuliginosus. (Perognathus)	302	.....	244
fuliginosus. (Perognathus f.)	302	.....	244
fuliginosus. (Sciuropterus a.)	123	.....	.....
fuliginosus. (Sciuropterus v.)	123	.....	111
fuliginosus. (Sciurus)	79	.....	.....
fuliginosus. (Sciurus c.)	79	.....	55
fuliginosus. (Trachops)	514	664	.....
fulva. (Arvicola)	235	.....	180
fulva. (Vulpes)	380	.....	.....
fulvescens. (Cratogeomys)	266	316	.....
fulvescens. (Hesperomys)	189	248
fulvescens. (Oryzomys)	189	248
fulvescens. (Reithrodontomys m.)	198	264

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
fulvescens. (Rhithrodontomys m.).....	198	264, 265	.....
fulvi-fasciatus. (Delphinus).....	30	54	28
fulviverter. (Marmosa).....	3	8	.....
fulviverter. (Microtus).....	246	301	.....
fulviverter. (Neotoma).....	220	288	.....
fulviverter. (Sigmodon).....	180	232	.....
fulvo-fasciatus. (Delphinus).....	30	54	28
fulvus. (Canis).....	380	.....	304
fulvus. (Chilonycteris d.).....	506	.....	.....
fulvus. (Dermonotus d.).....	506	646	.....
fulvus. (Geomys).....	272, 280	.....	227
fulvus. (Peromyscus l.).....	142	183	.....
fulvus. (Peromyscus s.).....	142	183	.....
fulvus. (Thomomys).....	272, 280	334	227
fumarium. (Phyllostoma).....	529	.....	.....
fumarius. (Dysopes).....	495	620	.....
fumarius. (Molossus).....	496	621	.....
fumeus. (Sorex).....	447	.....	369
fumosus. (Geomys).....	267	318	.....
fumosus. (Platygeomys).....	267	318	.....
funebri. (Lasiurus).....	485	593	412
furvus. (Peromyscus).....	169	208	.....
furvus. (Sigmodon h.).....	178	225	.....
fusca. (Diplostoma).....	262	.....	217
fusca. (Neotoma c.).....	222	.....	165
fusca. (Neotoma o.).....	222	.....	.....
fusca. (Talpa).....	470	.....	388
fusca. (Teonoma).....	222	.....	.....
fuscipes. (Neotoma).....	206	278, 279	158
fuscodorsalis. (Evotomys).....	230	.....	172
fuscogriseus. (Metachirus).....	5	12	.....
fuscovariegatus. (Sciurus).....	76	128	.....
fuscus. (Delphinus).....	31	55	28
fuscus. (Desmodus).....	530	719	.....
fuscus. (Thomomys c.).....	277	.....	.....
fuscus. (Thomomys d.).....	277	.....	226
fuscus. (Vespertilio).....	482, 483	587	410
fuscus. (Peromyscus l.).....	†542	.....	.....
gabbi. (Bassaricyon).....	400	487, 489	.....
gabbi. (Lepus).....	351	426	.....
gabbi. (Lepus b.).....	351	.....	.....
gabbii. (Bassaricyon).....	400	.....	.....
gadovi. (Peromyscus l.).....	165	201	.....
gaillardi. (Lepus).....	354	433	.....
Gale.....	423	530	338
galei. (Evotomys).....	231	173
galei. (Evotomys g.).....	231	173
Galemys.....	460	556	382

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<i>Galemys micrusus</i>	461	382
<i>Galera</i>	418	524
<i>Galera allamandi</i>	418
<i>Galera b. biologiae</i>	418
<i>Galera b. senex</i>	418	.....	.....
<i>Galera canaster</i>	419	.....	.....
<i>Galictis</i>	418	524	.....
<i>Galictis allamandi</i>	418	526	.....
<i>Galictis b. biologiae</i>	418	.....	.....
<i>Galictis b. senex</i>	418	525	.....
<i>Galictis canaster</i>	419	526	.....
<i>Galidictis</i>	418	524	.....
<i>galii</i> . (<i>Evotomys g.</i>).....	231	.....	.....
<i>gambeli</i> . (<i>Peromyscus t.</i>).....	145, 149	.....	130
<i>gambelii</i> . (<i>Hesperomys</i>).....	145	.....	130
<i>gapperi</i> . (<i>Arvicola</i>).....	230	.....	172
<i>gapperi</i> . (<i>Evotomys</i>).....	230	.....	172
<i>gaumeri</i> . (<i>Adelonycteris</i>).....	485	590	.....
<i>gaumeri</i> . (<i>Heteromys</i>).....	317	371	.....
<i>gaumeri</i> . (<i>Vespertilio</i>).....	485	590	.....
<i>gaurus</i> . (<i>Peromyscus</i>).....	148	199	.....
<i>gentilis</i> . (<i>Peromyscus g.</i>).....	164	197	.....
<i>Genyscelus</i>	337	408	.....
<i>Geocapromys</i>	330, 331	389, 393	.....
<i>geoffroyi</i> . (<i>Anoura</i>).....	519	.....	.....
<i>geoffroyi</i> . (<i>Anura</i>).....	519, 520	682	.....
<i>geoffroyi</i> . (<i>Ateles</i>).....	535	733	.....
<i>geoffroyi</i> . (<i>Hapale</i>).....	532	724	.....
<i>geoffroyi</i> . (<i>Midas</i>).....	532	724	.....
<i>geoffroyi</i> . (<i>Edipomidas</i>).....	532	.....	.....
<i>Geomyidae</i>	261	309	215
<i>Geomys</i>	261	310	215
<i>Geomys arenarius</i>	264	310	219
<i>Geomys borealis</i>	275, 278	.....	224, 227
<i>Geomys breviceps</i>	263	.....	218
<i>Geomys b. atwateri</i>	263	.....	219
<i>Geomys b. sagittalis</i>	263	.....	218
<i>Geomys bulleri</i>	268	320	.....
<i>Geomys bursarius</i>	262, 263	.....	217
<i>Geomys b. lutescens</i>	263	.....	218
<i>Geomys cherriei</i>	271	330	.....
<i>Geomys cinerea</i>	262	.....	217
<i>Geomys clarkii</i>	266	315	.....
<i>Geomys colonus</i>	262	.....	217
<i>Geomys cumberlandius</i>	262	.....	217
<i>Geomys douglasii</i>	277	.....	226
<i>Geomys f. austrinus</i>	262	.....	.....
<i>Geomys fulvus</i>	272, 280	334	227
<i>Geomys fumosus</i>	267	318
<i>Geomys grandis</i>	268	322

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Geomys gymnurus.....	266	318
Geomys heterodus.....	270	327
Geomys hispidus.....	269	326
Geomys lutescens.....	263	.....	218
Geomys merriami.....	264	.....	.....
Geomys nelsoni.....	268	320	.....
Geomys oregonensis.....	262	.....	217
Geomys personatus.....	264	.....	220
Geomys p. fallax.....	264	.....	220
Geomys pinetis.....	261	.....	215
Geomys scalops.....	269	324	.....
Geomys texensis.....	264	.....	219
Geomys townsendii.....	275	.....	224
Geomys tuza.....	261	.....	215
Geomys t. austrinus.....	262	.....	217
Geomys t. floridanus.....	261	.....	215
Geomys t. mobilensis.....	262	.....	216
Geomys umbrinus.....	280	.....	.....
Gerbillus.....	324	.....	.....
Gerboa.....	119	.....	.....
geronimensis. (Peromyscus).....	162	181	.....
geronimensis. (Phoca r.).....	443	542	.....
gibbar. (Balænoptera).....	18	42	.....
gibbosus. (Agaphelus).....	18	.....	11
gibbsi. (Neurotrichus).....	466	.....	387
gibbsii. (Urotrichus).....	466	.....	387
gigas. (Alce).....	41	.....	38
gigas. (Alces).....	41	.....	.....
gigas. (Felis).....	373	.....	299
gigas. (Hydrodamalis).....	14	35	5
gigas. (Lynx).....	373	.....	299
gigas. (Manatus).....	14	.....	5
gigas. (Notiosorex).....	460	555	.....
gilberti. (Sitomys).....	150	195	132
gillespii. (Otaria).....	437	539	356
gilli. (Tursiops).....	32	56	29
gilva. (Neotoma i.).....	217	.....	162
gilvus. (Perognathus m.).....	302	.....	243
glacialis. (Balæna).....	15	.....	8
glacialis. (Lepus).....	358	.....	270
glacialis. (Sorex).....	451	.....	372
gladiator. (Delphinus).....	26	51	22
gladiator. (Orcinus).....	26	51	22
glaucinus. (Dysopes).....	497	623	.....
glaucinus. (Promops).....	497	623	.....
glaucula. (Felis).....	367	450	.....
glaucus. (Agaphelus).....	16	40	9
glaucus. (Rhachianectes).....	16	40	9
Glis.....	119	.....	104
Glis canadensis.....	120	.....	106

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
Globicephala.....	27	52	.....
Globicephalus.....	27	52	.....
Globicephalus brachypterus.....	28	53, 54	.....
Globicephalus melas.....	27	47, 52	.....
Globicephalus scammoni.....	28	54	.....
globiceps. (Delphinus).....	27	52	23
Globiocephalus.....	.....	.....	23
Globiocephalus brachypterus.....	28	53	24
Globiocephalus grayi.....	27	51	23
Globiocephalus incrassatus.....	27	53	23
Globiocephalus macrorhynchus.....	27	53	23
Globiocephalus melas.....	27	53	23
Globiocephalus scammoni.....	28	54	24
Glossonycteris.....	519	681	.....
Glossonycteris lasiopyga.....	520	682	.....
Glossophaga.....	516	670	.....
Glossophaga amplexicaudata.....	516	672	.....
Glossophaga caudifera.....	519, 520	.....	.....
Glossophaga mutica.....	516	671	.....
Glossophaga soricina.....	516	672	.....
Glossophaga s. antillarum.....	517	672	.....
Glossophaginæ.....	516	670	.....
Glyphonycteris.....	513	663	.....
Glyphonycteris sylvestris.....	513	664	.....
godmani. (Choeronycteris).....	517	674	.....
godmani. (Mustela).....	422	.....	335
godmani. (Sorex).....	455	552	.....
goldmani. (Blarina m.).....	465	560	.....
goldmani. (Canis).....	378	.....	.....
goldmani. (Citellus a.).....	116	151	.....
goldmani. (Cratogeomys c.).....	266	316	.....
goldmani. (Felis h.).....	366	.....	.....
goldmani. (Felis o.).....	366	447	.....
goldmani. (Heteromys).....	318	373	.....
goldmani. (Lepus).....	349	.....	†745
goldmani. (Lepus a.).....	349	.....	.....
goldmani. (Nelsonia).....	224	290	.....
goldmani. (Neotoma).....	220	288	.....
goldmani. (Oryzomys).....	186	246	.....
goldmani. (Perodipus).....	294	.....	.....
goldmani. (Perognathus).....	313	365	.....
goldmani. (Peromyscus).....	138	186	.....
goldmani. (Putorius f.).....	432	534	.....
goldmani. (Reithrodontomys).....	201	268	.....
goldmani. (Rhithrodontomys).....	201	268	.....
goldmani. (Sciuropterus v.).....	126	.....	.....
goldmani. (Sciurus).....	77	130	.....
goldmani. (Spermophilus a.).....	116	151	.....
goldmani. (Thomomys).....	283	339	.....

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
gossi. (<i>Synaptomys c.</i>)	255		204
gossii. (<i>Synaptomys h.</i>)	255		204
Gossypinus.	143		
gossypinus. (<i>Peromyscus</i>)	143		
Gossypinus.	143		
gossypinus. (<i>Hesperomys</i>)	143		126
gossypinus. (<i>Peromyscus</i>)	143		126
Gossypion.	143		
gracilis. (<i>Dysopes</i>)	498	626	
gracilis. (<i>Enydris</i>)	436	537	354
gracilis. (<i>Hesperomys</i>)	144		128
gracilis. (<i>Nyctinomops</i>)	498	626	
gracilis. (<i>Reithrodontomys m.</i>)	198	265	
gracilis. (<i>Rhithrodontomys m.</i>)	198	265	
gracilis. (<i>Rhogeessa</i>)	498		
gracilis. (<i>Rhogeessa</i>)	489	602	
gracilis. (<i>Spilogale</i>)	415		330
gracilis. (<i>Tamias a.</i>)	91		76
grahamensis. (<i>Sciurus f.</i>)	85		67
grahamensis. (<i>Sciurus h.</i>)	85		
grammurus. (<i>Citellus v.</i>)	113, 114	149, 150	
grammurus. (<i>Sciurus</i>)	113	149	88
grammurus. (<i>Spermophilus</i>)	113	149	
Grampus.	28		24
Grampus cuvieri.	28		25
Grampus griseus.	28		25
Grampus stearnsii	28		25
grandis. (<i>Geomys</i>)	268	322	
grandis. (<i>Neotoma</i>)	215		
grandis. (<i>Neotoma d.</i>)	215		
grandis. (<i>Orthogeomys</i>)	268, 269	322	
grangeri. (<i>Lepus</i>)	349, 350		285
grangeri. (<i>Lepus s.</i>)	349		
grangeri. (<i>Neotoma</i>)	223		165
grangeri. (<i>Teonoma</i>)	223		
granti. (<i>Rangifer</i>)	39		
gratus. (<i>Peromyscus</i>)	164	196	
grayi. (<i>Globiocephalus</i>)	27	51	23
grayi. (<i>Phyllostoma</i> †)	515	669	
graysoni. (<i>Lepus</i>)	351	426	
grebnitzkii. (<i>Ziphius</i>)	23		*480
greenii. (<i>Scotophilus</i>)	483	587	410
grisea. (<i>Chilonycteris</i>)	504		
grisea. (<i>Chilonycteris m.</i>)	504	†747	
grisea. (<i>Cynomys</i>)	117		102
griseiflavus. (<i>Rhithrodontomys</i>)	202	270	
griseiflavus. (<i>Sciurus</i>)	74	124	
griseocaudatus. (<i>Sciurus</i>)	77		

*Supplement.

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griseoflavus. (Macroxus)	74
griseoflavus. (Reithrodontomys)	202	270
griseoflavus. (Sciurus)	64	110	58
griseogena. (Sciurus)	60, 61	101, 104	.....
griseogenys. (Sciurus)	61	104	.....
griscens. (Ateles)	535	734	.....
griseus. (Arctopithecus)	9	23	.....
griseus. (Bradypus) .....	.....	24	.....
griseus. (Canis)	375, 386	.....	307
griseus. (Canis l.)	375	.....	300
griseus. (Delphinus)	28	.....	25
griseus. (Grampus)	28	.....	25
griseus. (Heteromys)	319	373	.....
griseus. (Lepus t.)	356	436	.....
griseus. (Lupus)	375	.....	.....
griseus. (Sciurus)	78	130	55
griseus. (Tamias s.)	96	.....	81
Grison	418	524	.....
Grison allamandi	418	526	.....
Grison b. biologiæ	418	524	.....
Grison b. senex	418	525	.....
Grison canaster	419	526	.....
Grisonia	418	524	.....
groenlandicus. (Lepus)	359	.....	271
groenlandicus. (Mus) .....	.....	.....	209
groenlandica. (Phoca)	444	.....	364
groenlandicus. (Cervus)	39	.....	37
groenlandicus. (Rangifer)	39	.....	37
Grymæomys	2	5	.....
Grymæomys dorsiger	2	.....	.....
Grymæomys impavida	2	.....	.....
Grymæomys murinus	2	.....	.....
gryphus. (Vespertilio)	478	.....	405
grypus. (Halichoerus)	441	.....	361
grypus. (Phoca)	441	.....	363
guadalupensis. (Microtus m.)	245	.....	.....
guatemalæ. (Urocyon)	389	.....	.....
guatemalæ. (Urocyon c.)	389	475	.....
guatemalensis. (Microtus)	251	306	.....
guatemalensis. (Peromyscus)	171	211	.....
gubernator. (Lagenorhynchus)	29	.....	25
Guerlinguetus	59, 61	93, 103	50
guianensis. (Mustela)	1	3	.....
Gulo	416	.....	333
Gulo hylæus	417	.....	.....
Gulo luscus	416	.....	333
Gulo luteus	417	.....	.....
gulo. (Mustela)	416	.....	.....
gundlachi. (Capromys p.)	331	392	.....
gunnisoni. (Cynomys)	118	.....	103

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
gunnisoni. (Spermophilus)	118	.....	.....
guttatus. (Arctomys).....	111	.....	92
gyas. (Ursus d.)	391	.....	.....
gymnicus. (Sciurus h.)	80	.....	61
Gymnotis.	43	68	.....
gymnotis. (Peromyscus).....	162	188	.....
gymnurus. (Geomys)	266	318	.....
gymnurus. (Platygeomys)	266, 267	318	.....
Gypsophoca	438	.....	.....
Haematomycteris	530	720	.....
haidarum. (Putorius).....	429	.....	351
Halarctus	438	.....	.....
Halichoerus	440	.....	361
Halichoerus grypus	441	.....	361
Halicyon richardii.....	442	.....	.....
Halophilus	441	541	361
hallensis. (Vulpes)	382	.....	307
Hapale geoffroyi.....	532	724	.....
Hapale œdipus	532	724	.....
Haplodon californica	127	.....	.....
Haplodontia	126	.....	112
Haplodontia olympica.....	127, 128	.....	114
Haplodontia pacifica	127	.....	114
Haplodontia phœa	127	.....	114
Haplodontia rufa	126, 127	.....	112
Haplodontia r. californica.....	127	.....	112
Haplodontia r. rainieri	127	.....	112
Haplodontiæ	126	.....	111
Haplomylomys	135, 136	170	.....
hardyi. (Zapus h.)	324	.....	257
harrimani. (Vulpes).....	380	.....	303
harrisi. (Citellus)	96	141, 143	.....
harrisii. (Spermophilus)	96	141	85
hastalis. (Cervus)	37	.....	35
hastatum. (Phyllostoma)	514	666	.....
hastatus. (Vespertilio)	514	666	.....
haydeni. (Microtus)	248	.....	197
haydeni. (Sorex).....	446	.....	367
haydenii. (Arvicola).....	248	.....	197
hebes. (Vulpes v.)	384	.....	.....
heermanni. (Sciurus)	78	130	55
helaletes. (Synaptomys)	255	.....	204
Heliophoca	444	542	.....
helleri. (Dipodomys d.)	292	.....	.....
helleri. (Perognathus).....	312	360	.....
helleri. (Thomomys)	278	.....	.....
helleri. (Vampyrops).....	526	703	.....
helvolus. (Arvicola)	259	.....	208
helvolus. (Lemmus t.)	259	.....	208

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
helvolus. (<i>Reithrodontomys g.</i>)	202	270	.....
helvolus. (<i>Rhithrodontomys g.</i>)	202	270	.....
Hemiderma	515	667	.....
Hemiderma brevicaudum	515	669	.....
Hemiderma castaneum	516	670	.....
Hemiderma perspicillatum	515	668	.....
hemionotis. (<i>Peromyscus</i>)	139	199	.....
hemionus. (<i>Cervus</i>)	48	76	42
hemionus. (<i>Odocoileus</i>)	48	76	42
hemionus. (<i>Odontocoeus</i>)	48	76, 77, 78	.....
Hemiotomys	234	299	178
henshawi. (<i>Vespertilio n.</i>)	476	578	404
hermanni. (<i>Dipodomys</i>)	293	.....	236
hernandezi. (<i>Felis</i>)	.....	.....	294
hernandezi. (<i>Felis o.</i>)	365, 366	446	.....
hernandezi. (<i>Procyon l.</i>)	401	491	317
hernandezi. (<i>Sciurus a.</i>)	70	118	.....
hernandezi. (<i>Sciurus p.</i>)	70	118	.....
hernandezii. (<i>Leopardus</i>)	365	446	.....
hernandezii. (<i>Procyon</i>)	400	.....	.....
Herpailurus	365	443	.....
Herpestes	373	461	.....
Herpestes mungo	374	462	.....
Herpetomys	234, 251	306	179
herroni. (<i>Peromyscus</i>)	155	.....	137
herronii. (<i>Sitomys</i>)	155	.....	137
Hesperomys	135	.....	.....
Hesperomys affinis	161	180	.....
Hesperomys alfaroi	183, 184	242	.....
Hesperomys anthonyi	137	185	141
Hesperomys austerus	149	.....	132
Hesperomys aztecus	162	184	.....
Hesperomys boylii	150	195	132
Hesperomys caliginosus	190	253	.....
Hesperomys cherrii	160	183	.....
Hesperomys cognatus	.....	.....	127
Hesperomys couesi	186	236	.....
Hesperomys crinitus	159	.....	140
Hesperomys eremicus	136	191	136
Hesperomys floridanus	156	.....	138
Hesperomys fulvescens	189	248	.....
Hesperomys gambelii	145	.....	130
Hesperomys gossypinus	143	.....	126
Hesperomys gracilis	144	.....	128
Hesperomys l. arcticus	146	.....	131
Hesperomys l. deserticolus	140	188	.....
Hesperomys l. nebrascensis	146	.....	.....
Hesperomys l. rufinus	142	126
Hesperomys maniculatus	148	131
Hesperomys megalotis	157	139

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<i>Hesperomys melanophrys</i>	166	201
<i>Hesperomys mexicanus</i>	168	207
<i>Hesperomys myoides</i>	144	128
<i>Hesperomys niveiventris</i>	138	.....	141
<i>Hesperomys nudicaudus</i>	173	217	.....
<i>Hesperomys nudipes</i>	165	198	.....
<i>Hesperomys palustris</i>	180	.....	.....
<i>Hesperomys sonoriensis</i>	141	181	125
<i>Hesperomys sumichrasti</i>	172	216	.....
<i>Hesperomys taylora</i>	135	.....	141
<i>Hesperomys teguina</i>	204	273	.....
<i>Hesperomys texana</i>	145	186	.....
<i>Hesperomys toltecus</i>	177	226	.....
<i>Hesperomys torridus</i>	133	.....	.....
<i>Hesperomys truei</i>	159	.....	139
<i>Hesperosciurus</i>	59, 78	94, 130	50, 55
<i>hesperus</i> . (<i>Pipistrellus</i>)	480	582	409
<i>hesperus</i> . (<i>Scotophilus</i>)	480	582	409
<i>hesperus</i> . (<i>Thomomys</i>)	279	.....	.....
<i>heterodus</i> . (<i>Geomys</i>)	270	327	.....
<i>heterodus</i> . (<i>Macrogeomys</i>)	270	328	.....
<i>Heterogeomys</i>	269	325	.....
<i>Heterogeomys hispidus</i>	269	326	.....
<i>Heterogeomys torridus</i>	270	326	.....
<i>Heteromyidæ</i>	288	341	231
<i>Heteromyinæ</i>	300	352	241
<i>Heteromys</i>	316	368, 369	255
<i>Heteromys adspersus</i>	319	373	.....
<i>Heteromys albolimbatus</i>	320	375	.....
<i>Heteromys alleni</i>	321	376	256
<i>Heteromys annectens</i>	317	371	.....
<i>Heteromys bulleri</i>	317	369	.....
<i>Heteromys canus</i>	321	375	.....
<i>Heteromys crispus</i>	320	380	.....
<i>Heteromys c. setosus</i>	320	380	.....
<i>Heteromys desmarestianus</i>	318	372	.....
<i>Heteromys exiguus</i>	321	377	.....
<i>Heteromys gaumeri</i>	317	371	.....
<i>Heteromys goldmani</i>	318	373	.....
<i>Heteromys g. lepturus</i>	318	373	.....
<i>Heteromys griseus</i>	319	373	.....
<i>Heteromys heterothrix</i>	320	380	.....
<i>Heteromys hispidus</i>	318	371	.....
<i>Heteromys irroratus</i>	316	369	.....
<i>Heteromys longicaudatus</i>	317, 318	370, 372	.....
<i>Heteromys nelsoni</i>	323	381	.....
<i>Heteromys obscurus</i>	319	379	.....
<i>Heteromys orbitalis</i>	320	380
<i>Heteromys paralius</i>	320	381
<i>Heteromys parviceps</i>	322	378

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<i>Heteromys phæura</i>	319	379
<i>Heteromys phæurus</i>	319
<i>Heteromys pictus</i>	322	377
<i>Heteromys p. isthmius</i>	322	378	.....
<i>Heteromys p. rostratus</i>	322	378	.....
<i>Heteromys plantinarenensis</i>	322	377	.....
<i>Heteromys repens</i>	318	372	.....
<i>Heteromys salvini</i>	317	370	.....
<i>Heteromys s. nigrescens</i>	317	370	.....
<i>Heteromys sonorana</i>	323	379	.....
<i>Heteromys texensis</i>	323	.....	.....
<i>Heteromys torridus</i>	321	376	.....
<i>Heteromys t. minor</i>	321	377	.....
<i>Heteromys veracrucis</i>	319	379	.....
<i>heterothrix</i> . (<i>Heteromys</i>)	320	380	.....
<i>heterothrix</i> . (<i>Liomys</i>)	320	380	.....
<i>hiemalis</i> . (<i>Sciurus</i>)	79	.....	53
<i>hindsii</i> . (<i>Tamias</i>)	86	.....	.....
<i>hindsii</i> . (<i>Tamias t.</i>)	86	.....	70
<i>hindsii</i> . (<i>Tamias t.</i>)	86	.....	.....
<i>Hippocamelus</i>	50	.....	.....
<i>Hippocamelus dubius</i>	50	.....	.....
<i>Hippocamelus pandora</i>	51	.....	.....
<i>Hippocamelus sartori</i>	50	.....	.....
<i>hippolestes</i> . (<i>Felis</i>)	369	454	294
<i>hirsutum</i> . (<i>Schizostoma</i>)	512	661	.....
<i>hirsutus</i> . (<i>Arvicola</i>)	235	.....	179
<i>hirsutus</i> . (<i>Micronycteris</i>)	512	661	.....
<i>hirsutus</i> . (<i>Reithrodontomys</i>)	202	269	.....
<i>hirsutus</i> . (<i>Rhithrodontomys</i>)	202	269, 270	.....
<i>hirtus</i> . (<i>Sciurus n.</i>)	72	121	.....
<i>hispida</i> . (<i>Phoca</i>)	443	.....	364
<i>hispidus</i> . (<i>Geomys</i>)	269	326	.....
<i>hispidus</i> . (<i>Heterogeomys</i>)	269	326	.....
<i>hispidus</i> . (<i>Heteromys</i>)	318	371	.....
<i>hispidus</i> . (<i>Perognathus</i>)	309	360	251
<i>hispidus</i> . (<i>Sigmodon</i>)	174, 175	222, 232	144
<i>hispidus</i> . (<i>Xenurus c.</i>)	12	32	.....
<i>Histiops</i>	526	704	.....
<i>Histiotus</i>	490	.....	398
<i>Histiotus maculatus</i>	490	.....	398
<i>Histriophoca</i>	441	.....	361
<i>Hodomys</i>	226	296	.....
<i>Hodomys alleni</i>	226	297	.....
<i>Hodomys vetulus</i>	226	297	.....
<i>hoffmanni</i> . (<i>Choloeus</i>)	9	20
<i>hoffmanni</i> . (<i>Sciurus æ.</i>)	61	104
<i>Holochilus</i>	221
<i>Holochilus pilorides</i>	221

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holosericeus. (Dysopes).....	495	619
holzneri. (Lepus).....	345	284
holzneri. (Lepus f.).....	345	419
holzneri. (Lepus s.).....	345	.....	.....
holzneri. (Mephitis o.).....	409	507	.....
homochroia. (Peromyscus).....	148	200	.....
hoodi. (Arctomys).....	104	.....	.....
hopiensis. (Eutamias).....	†541	.....	.....
hopiensis. (Tamias).....	†541	.....	.....
horriæus. (Ursus).....	393	480	.....
horriæus. (Ursus h.).....	393	.....	312
horribilis. (Ursus).....	392, 393	.....	312
hortensis. (Arvicola).....	175	.....	144
hoyi. (Microsorex).....	457	.....	377
hoyi. (Sorex).....	456, 457	.....	377
huachuca. (Sciurus a.).....	64	109	60
hudsonia. (Mephitis).....	406	.....	322
hudsonia. (Mephitis m.).....	406	.....	.....
hudsonica. (Lutra).....	433	.....	352
hudsonica. (Mephitis a.).....	406	.....	.....
hudsonicus. (Sciurus v.).....	80	.....	.....
hudsonius. (Dicrostonyx).....	260	.....	209
hudsonius. (Dipus).....	323, 324	.....	257
hudsonius. (Fiber z.).....	253	.....	.....
hudsonius. (Hystrix).....	333	.....	265
hudsonius. (Jaculus).....	328	.....	.....
hudsonius. (Lepus).....	360	.....	273
hudsonius. (Mus).....	260	.....	209
hudsonius. (Sciurus).....	80, 124	.....	60, 107
hudsonius. (Zapus).....	324	.....	257
hulophaga. (Blarina b.).....	461	.....	.....
humboldtii. (Conepatus).....	410	512	.....
humale. (Tagassu a.).....	35	63	.....
humeralis. (Nycticeius).....	488	598	.....
humeralis. (Nycticejus).....	488	598	415
humeralis. (Tayassu a.).....	35	63	.....
humeralis. (Vespertilio).....	488	597	415
humilis. (Ochetodon).....	192	.....	151
hunteri. (Delphinus).....	21	.....	16
Hunterius.....	15	.....	7
Hunterus.....	15	.....	.....
huro. (Mustela).....	419	335	.....
hyacinthinus. (Neurotrichus g.).....	467	388
hybridus. (Ateles).....	535	733
Hydrodamalidæ.....	14	5
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Hydrodamalis australis.....	36
Hydrodamalis dugong.....	36
Hydrodamalis gigas.....	14	35	5

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
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Hydrodamalis tabernaculi.....	36
hydrodromus. (Neosorex).....	458	379
hydrodromus. (Sorex).....	458	379
Hydrolagus.....	340	413	269
hylæus. (Gulo).....	417	.....	.....
hylocetes. (Oryzomys).....	187	237	.....
hylocetes. (Peromyscus).....	167	204	.....
hylodromus. (Ursus).....	396	.....	.....
Hylonycteris.....	517	675	.....
Hylonycteris underwoodi.....	517, 518	675	.....
hylophaga. (Blarina b.).....	461	.....	383
Hyonycteris.....	503	637	.....
Hyonycteris discifera.....	503	637	.....
hyperythrus. (Microtus c.).....	240	302	.....
hypoleuca. (Simia).....	536	736	.....
hypoleucus. (Cebus).....	536	736	.....
hypophæus. (Sciurus c.).....	79	.....	54
hypopyrrhus. (Sciurus).....	62, 68, 73	121, 126	.....
.....	75, 76, 77	127, 128	.....
hypopyrrhus. (Sciurus a.).....	68	116	.....
hypoxanthus. (Sciurus).....	68	115	.....
Hypsugo.....	480	582	408
Hypudæus.....	130	.....	119
Hypudæus leucogaster.....	130	.....	119
Hypudæus ochrogaster.....	248	.....	196
Hystrix dorsata.....	333	.....	.....
Hystrix dorsatus.....	332	397	264
Hystrix hudsonius.....	333	.....	265
Hystrix mexicana.....	335	402	.....
Hystrix novæ-hispaniæ.....	335	402	.....
Hystrix pilosus.....	333	397	264
Hystrix prehensilis.....	334, 335	399, 402	.....
Hyperoodon.....	21	.....	15
Hyperoodon latifrons.....	21	.....	16
Hyperoodon rostratus.....	21	.....	16
hyperoodon. (Delphinus).....	21	.....	16
ibsenii. (Delphinus).....	29	.....	26
ichneumon. (Viverra).....	373	461	.....
Ictidomys.....	96, 104	139	82, 99
Ictis.....	423	529	338
Ictonyx.....	410	512	.....
idahoensis. (Evotomys).....	232	.....	175
idahoensis. (Lepus).....	351	.....	287
idahoensis. (Sorex).....	446	367
idahoensis. (Thomomys).....	284
Ignavus.....	9	21
ignavus. (Arctomys).....	119

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ignavus. (<i>Arctomys m.</i>).....	119	105
ignavus. (<i>Marmota m.</i>).....	119
imitator. (<i>Cebus</i>).....	536	737
impavida. (<i>Didelphys</i>).....	2
impavida. (<i>Grymaeomys</i>).....	2	.....	.....
impavidus. (<i>Canis</i>).....	379	468	.....
imperator. (<i>Zapus</i>).....	326	.....	261
impiger. (<i>Reithrodontomys l.</i>).....	191	.....	149
impiger. (<i>Rhithrodontomys l.</i>).....	191	.....	.....
incautus. (<i>Myotis</i>).....	473	.....	.....
incautus. (<i>Vespertilio</i>).....	473	.....	.....
incitatus. (<i>Lepus</i>).....	351	428	.....
incrassatus. (<i>Globiocephalus</i>).....	27	53	23
incrassatus. (<i>Sphærocephalus</i>).....	27	53	23
indianola. (<i>Spilogale</i>).....	413	.....	329
inexoratus. (<i>Sigmodon h.</i>).....	177	229	.....
inexpectatus. (<i>Rhithrodontomys</i>).....	203	271	.....
inflata. (<i>Chilonycteris m.</i>).....	504	†747	.....
infraluteus. (<i>Perognathus</i>).....	301	.....	242
infraluteus. (<i>Perognathus f.</i>).....	301	.....	242
infusca. (<i>Balantiopteryx</i>).....	493	611	.....
infusca. (<i>Saccopteryx</i>).....	493	611	.....
infusca. (<i>Taxidea t.</i>).....	405	505	.....
infuscatus. (<i>Bradypus</i>).....	9	23	.....
ingens. (<i>Lutreola v.</i>).....	424	.....	.....
ingens. (<i>Perodipus</i>).....	298	.....	.....
ingens. (<i>Putorius v.</i>).....	424, 425	.....	340
ingrahami. (<i>Capromys</i>).....	332	394	.....
innuitus. (<i>Microtus</i>).....	242	.....	189
innuitus. (<i>Mictomys</i>).....	256	.....	205
innuitus. (<i>Synaptomys</i>).....	256	.....	205
innuitus. (<i>Vulpes l.</i>).....	382, 383	.....	.....
inornatus. (<i>Perognathus</i>).....	306	.....	247
Insectivora.....	446	547	366
insignis. (<i>Peromyscus</i>).....	155	203	138
insignis. (<i>Zapus</i>).....	328	.....	263
insolatus. (<i>Peromyscus</i>).....	154	.....	135
insolatus. (<i>Sitomys</i>).....	154	.....	135
insolitus. (<i>Lepus</i>).....	348	421	.....
insonus. (<i>Lepus</i>).....	341	†743	.....
insperatus. (<i>Arvicola</i>).....	236	.....	180
insulanus. (<i>Peromyscus</i>).....	144	.....	128
insularis. (<i>Artibeus</i>).....	522	.....	.....
insularis. (<i>Didelphis m.</i>).....	7	17	.....
insularis. (<i>Didelphys m.</i>).....	7	17	.....
insularis. (<i>Lepus</i>).....	358	438	.....
insularis. (<i>Marmosa</i>).....	3	7
insularis. (<i>Microtus</i>).....	238	182
insularis. (<i>Procyon l.</i>).....	401	492

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intermedia. (Mephitis v.)	410		
intermedia. (Neotoma)	216	284	161
intermedius. (Artibeus)	523	694	
intermedius. (Dasypterus)	487, 488	595	414
intermedius. (Delphinus)	27, 28	52	23, 25
intermedius. (Lasiurus)	487	595	414
intermedius. (Perognathus)	313	364	253
intermedius. (Phenacomys)	226		167
intermedius. (Reithrodontomys a.)	198		
intermedius. (Reithrodontomys m.)	198	264	153
intermedius. (Rhithrodontomys)	198	264	
intermedius. (Scalops a.)	470		390
intermedius. (Scalops m.)	470		
intermedius. (Scalopus a.)	470		
intermedius. (Sciurus)	76	127	
intermedius. (Thomomys f.)	280	336	228
interpres. (Citellus)	98	143	
interpres. (Spermophilus)	98	143	86
interpres. (Tamias)	98		86
interrupta. (Mephitis)	412		
interrupta. (Spilogale)	412	523	328
inunguis. (Trichechus)		35	
inyoensis. (Eutamias s.)	89		
inyoensis. (Tamias c.)	89		73
inyoensis. (Tamias s.)	89		
inyoensis. (Urocyon c.)	387		
irazu. (Acodon)	204	274	
irazu. (Akodon)	204	274	
irroratus. (Heteromys)	316	369	
Ischnoglossa	519	679	
Ischnoglossa nivalis	519	679	
isidorei. (Phoca)	440		360
Isodon pilorides	330	390	
Isotus	473	571	400
isthmica. (Dasypsecta)	336	407	
isthmica. (Neotoma)	219	287	
isthmus. (Heteromys p.)	322	378	
Jaculus	324		
Jaculus americanus	324		257
Jaculus hudsonius	328		
Jaguaris	365	443	
jaguarondi. (Felis)	367	451	295
jalapæ. (Mus m.)	130	163	
jalapæ. (Oryzomys)	184	246, 247	
jalapæ. (Reithrodontomys c.)	200	267	
jalapæ. (Rhithrodontomys c.)	200	267	
jaliscensis. (Myotis c.)	477	579	
jamaicensis. (Artibeus)	522, 527	693, 707	
jamaicensis. (Macrotus w.)	508		

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jamaicensis. (Otopterus w.).....	508
janira. (Delphinus).....	30	55	28
jeffersoni. (Meles).....	404	320
jubata. (Eumetopias).....	437	.....	.....
jubata. (Myrmecophaga).....	12	29	.....
jubata. (Otaria).....	437	.....	.....
jubata. (Phoca).....	437	.....	355
kadiacensis. (Citellus p.).....	108	.....	.....
kadiacensis. (Microtus).....	242	.....	188
kadiacensis. (Putorius a.).....	428	.....	346
kadiacensis. (Spermophilus e.).....	108	.....	90
kaibabensis. (Sciurus).....	67	.....	.....
keeni. (Peromyscus).....	151	.....	133
keeni. (Sitomys).....	151	.....	133
keenii. (Myotis s.).....	478	.....	405
keenii. (Vespertilio s.).....	478	.....	405
kenaiensis. (Mustela).....	421	.....	.....
kenaiensis. (Mustela a.).....	421	.....	.....
kenaiensis. (Ovis d.).....	55	.....	.....
kenaiensis. (Ursus).....	392	.....	.....
kenaiensis. (Vulpes).....	382	.....	†432
kennedyi. (Oreamnus).....	53	.....	44
kennicotti. (Arvicola).....	249	.....	198
kennicottii. (Arctomys).....	107	.....	89
keporkak. (Balæna).....	17	.....	10
kermodei. (Ursus).....	397	.....	.....
kermodii. (Ursus).....	397	.....	.....
kidderi. (Ursus).....	391	.....	.....
klamathensis. (Lepus).....	362	.....	276
klamathensis. (Reithrodontomys).....	196	.....	152
klamathensis. (Rhithrodontomys).....	196	.....	.....
klamathensis. (Sciuropterus a.).....	123	.....	.....
klamathensis. (Sciuropterus v.).....	123	.....	111
knoxii. (Benedenia).....	20	.....	13
kodiacensis. (Spermophilus e.).....	108	.....	.....
kodiacensis. (Spermophilus p.).....	108	.....	.....
Kogia.....	22	46	*479
Kogia breviceps.....	22	.....	*479
Kogia floweri.....	22	46	*479
kracheninikowi. (Otaria).....	.....	.....	357
kuzira. (Balæna).....	16	.....	9
kuzira. (Megaptera).....	16	.....	9
Kyphobalæna.....	17	40	9
labecula. (Peromyscus).....	142	178
labiatus. (Dicotyles).....	37	66
labilis. (Loncheres).....	328	384

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Laboura.....	334	400
labradoria. (Ursus).....	404	320
labradorius. (Dipus).....	324	257
labradorius. (Lepus).....	359	271
labradorius. (Meriones).....	328	.....	263
labradorius. (Microtus p.).....	236	.....	181
laceyi. (Reithrodontomys).....	199	.....	153
laceyi. (Rhithrodontomys).....	199	.....	.....
lachuguilla. (Thomomys a.).....	285	.....	.....
lacustris. (Lutreola v.).....	424	.....	.....
lacustris. (Putorius v.).....	424	.....	.....
ladas. (Zapus h.).....	324	.....	258
lænatum. (Coendu).....	335	402	.....
lænatus. (Coendou).....	335	402	.....
Lagenocetus.....	21	.....	.....
Lagenocetus latifrons.....	21	.....	16
Lágenorhynchus.....	29	.....	25
Lagenorhynchus acutus.....	29	.....	25
Lagenorhynchus albirostris.....	29	.....	26
Lagenorhynchus gubernator.....	29	.....	25
Lagenorhynchus obliquidens.....	30	.....	27
Lagenorhynchus perspicillatus.....	29	.....	25
Lagenorhynchus thicolea.....	29	.....	26
Lagomys.....	337	.....	266
Lagomys collaris.....	338	.....	268
Lagomys minimus.....	339	.....	269
Lagomys schisticeps.....	338	.....	267
lagopus. (Canis).....	.....	.....	306
lagopus. (Vulpes).....	383	.....	306
lagura. (Phoca).....	444	.....	364
Lagurus.....	234, 247	299	178, 194
Laira.....	418	524	.....
lanceolatum. (Phyllostoma).....	515	669	.....
lapponicus. (Rangifer).....	37	.....	.....
larcha. (Phoca).....	442	.....	363
lascivus. (Sciuropterus a.).....	123	.....	†428
Lasionycteris.....	479	.....	406
Lasionycteris noctivagans.....	480	.....	407
lasiopyga. (Glossonycteris).....	520	682	.....
Lasiurus.....	485	591	411
Lasiurus borealis.....	485	592	411
Lasiurus b. mexicanus.....	486	594	.....
Lasiurus b. pfeifferi.....	486	593	.....
Lasiurus b. seminolus.....	486	413
Lasiurus b. teliotis.....	486	593	413
Lasiurus cinereus.....	487	595	413
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Lasiurus intermedius.....	487	595	414
lasiurus. (Vespertilio).....	485	592	411

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Latax l. nereis.....	436		
Lataxia.....	433	535	
Lataxina.....	433	535	
Lataxina mollis.....	433		352
lataxina. (Lutra c.).....	433		352
lateralis. (Citellus).....	105	147	83
lateralis. (Sciurus).....	105		83
lateralis. (Spermophilus).....	105		83
laticaudatus. (Dysopes).....	499	627	
laticeps. (Thomomys).....	274		224
laticinctus. (Lepus).....	346, 347		
latifrons. (Hyperoodon).....	21		16
latifrons. (Lagenocetus).....	21		16
latifrons. (Neotoma).....	212	282	
latifrons. (Orthogeomys).....	269	324	
latifrons. (Spilogale p.).....	414		331
latimanus. (Phenacomys).....	227		169
latimanus. (Scalops).....	468		391
latirostris. (Manatus).....	14	37	6
latirostris. (Orca).....	26	51	22
latirostris. (Perognathus).....	310		252
latirostris. (Thomomys).....	286		
Latra minima.....	1	2, 3	
latrans. (Arctomys).....	117		102
latrans. (Canis).....	376		301
leachii. (Monophyllus).....	516	672	
lecontei. (Reithrodontomys).....	191		148
lecontei. (Mus).....	191	256	
lecontei. (Plecotus).....	490		399
lecontei. (Rhithrodontomys).....	191		
lectus. (Eutamias).....	94		
lectus. (Tamias).....	94		
Leiobalæna.....	15		7
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Lemmus alascensis.....	259		207
Lemmus minusculus.....	259		
Lemmus nigripes.....	260		209
Lemmus noveboracensis.....	234		179
Lemmus trimucronatus.....	258, 259		207
Lemmus t. helvolus.....	259		208
Lemmus t. yukonensis.....	259		208
Lemmus yukonensis.....	259		
lemmus. (Mus).....	258		206
Leo marinus.....	437		
leonina. (Phoca).....	437, 439	545	355, 359
Leopardus.....	365	443, 444	294
Leopardus hernandezii.....	365	446	

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lepechini. (Phoca).....	441	362
lepida. (Neotoma).....	216
lepida. (Neotoma c.).....	216	164
lepidus. (Nyctiellus).....	502	634
lepidus. (Vespertilio).....	502	634	.....
Leporidae.....	339	411	269
leporina. (Aplodontia).....	126	.....	112
leporina. (Phoca).....	441	.....	362
leporinus. (Noctilio).....	494	617	.....
leporinus. (Sciurus).....	78	130	55
leporinus. (Vespertilio).....	494	617	.....
Leptonycteris.....	519	679	.....
Leptonycteris nivalis.....	519	679	.....
leptorhyncha. (Tatusia).....	13	34	4
lepturus. (Heteromys g.).....	318	373	.....
lepturus. (Peromyscus).....	167	204	.....
lepturus. (Vespertilio).....	492	610	.....
leptus. (Putorius s.).....	427	.....	.....
Lepus.....	340, 358	413	269
Lepus alleni.....	353	433	288
Lepus a. palitans.....	353	434	.....
Lepus altimiræ.....	354	†745	.....
Lepus americanus.....	360	.....	273
Lepus a. bairdi.....	361	.....	274
Lepus a. columbiensis.....	361	.....	275
Lepus a. dalli.....	361	.....	275
Lepus a. macfarlani.....	362	.....	275
Lepus a. macfarlanii.....	362	.....	.....
Lepus a. phæonotus.....	360	.....	273
Lepus a. struthopus.....	361	.....	274
Lepus a. virginianus.....	360	.....	273
Lepus a. washingtoni.....	361	.....	274
Lepus aquaticus.....	340	.....	277
Lepus a. attwateri.....	340	414	278
Lepus arcticus.....	358	.....	270
Lepus a. bangsi.....	358	.....	270
Lepus a. canus.....	359	.....	.....
Lepus arizonæ.....	349, 350	423	285
Lepus a. confinis.....	350	424	.....
Lepus a. goldmani.....	349	.....	.....
Lepus a. major.....	350	423	286
Lepus a. minor.....	350	423	286
Lepus a. pinetis.....	350	.....	.....
Lepus artemesia.....	.....	425	.....
Lepus asellus.....	355	435	.....
Lepus auduboni.....	345	422	283
Lepus a. sanctidiegi.....	346
Lepus bachmani.....	352	429
Lepus b. ubericolor.....	352

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Lepus baileyi</i>	349	.....	284
<i>Lepus bairdii</i>	361	.....	274
<i>Lepus bennetti</i>	357	437	.....
<i>Lepus bishopi</i>	362	.....	276
<i>Lepus borealis</i>	360	.....	273
<i>Lepus b. gabbi</i>	351	.....	.....
<i>Lepus californica</i>	357	437	.....
<i>Lepus californicus</i>	357	437	291
<i>Lepus c. xanti</i>	357	438	.....
<i>Lepus callotis</i>	353	431	288
<i>Lepus c. flavigularis</i>	†543	.....	.....
<i>Lepus campestris</i>	360, 362	.....	273, 277
<i>Lepus c. richardsoni</i>	363	.....	.....
<i>Lepus c. sierræ</i>	363	.....	.....
<i>Lepus c. townsendi</i>	363, 364	.....	.....
<i>Lepus cerrosensis</i>	352	428	.....
<i>Lepus cinerascens</i>	352	429	287
<i>Lepus diazi</i>.....	.....	412	.....
<i>Lepus douglasi</i>.....	.....	415	.....
<i>Lepus durangæ</i>	345	424	.....
<i>Lepus edwardsi</i>	358	.....	.....
<i>Lepus festinus</i>	354	†746	.....
<i>Lepus flavigularis</i>	353	431	288
<i>Lepus floridanus</i>	342	.....	280
<i>Lepus f. alacer</i>	343	.....	282
<i>Lepus f. aztecus</i>	344	418	.....
<i>Lepus f. bachmani</i>	352	.....	281
<i>Lepus f. caniculus</i>	344	.....	283
<i>Lepus f. chapmani</i>	343, 344	.....	282
<i>Lepus f. chiapensis</i>	344	†744	.....
<i>Lepus f. connectens</i>	343	†743	.....
<i>Lepus f. holzneri</i>	345	419	.....
<i>Lepus f. mallurus</i>	342	.....	280
<i>Lepus f. mearnsi</i>	342	.....	280
<i>Lepus f. persultator</i>	345	418	.....
<i>Lepus f. rigidus</i>	345	419	.....
<i>Lepus f. sanctidiegi</i>	345	.....	.....
<i>Lepus f. simplicianus</i>	343	.....	.....
<i>Lepus f. subcinctus</i>	344	417	.....
<i>Lepus f. transitionalis</i>	342	.....	281
<i>Lepus f. ubericolor</i>	352	.....	282
<i>Lepus f. yucatanicus</i>	345	419	.....
<i>Lepus gabbi</i>	351	426	.....
<i>Lepus gaillardi</i>	354	433	.....
<i>Lepus g. battyi</i>	355	433	.....
<i>Lepus glacialis</i>	358	.....	270
<i>Lepus goldmani</i>	349	†745
<i>Lepus grangeri</i>	349, 350	285
<i>Lepus g. pinetis</i>	350	285

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<i>Lepus graysoni</i>	351	426
<i>Lepus groenlandicus</i>	359	271.
<i>Lepus holzneri</i>	345	284
<i>Lepus hudsonius</i>	360	.....	273
<i>Lepus idahoensis</i>	351	.....	287
<i>Lepus incitatus</i>	351	428	.....
<i>Lepus insolitus</i>	348	421	.....
<i>Lepus insonus</i>	341	†743	.....
<i>Lepus insularis</i>	358	438	.....
<i>Lepus klamathensis</i>	362	.....	276
<i>Lepus labradorius</i>	359	.....	271
<i>Lepus laticinctus</i>	346, 347	.....	.....
<i>Lepus l. perplicatus</i>	347	.....	.....
<i>Lepus l. rufipes</i>	346	.....	.....
<i>Lepus martirensis</i>	358	439	.....
<i>Lepus melanotis</i>	355	.....	290
<i>Lepus merriami</i>	354	432	289
<i>Lepus m. altimiræ</i>	354	.....	.....
<i>Lepus mexicanus</i>	353	431	288
<i>Lepus nanus</i>	360	.....	273
<i>Lepus nigricaudatus</i>	353	431	288
<i>Lepus nuttalli</i>	348	425	284
<i>Lepus n. mallurus</i>	342	.....	.....
<i>Lepus orizabæ</i>	351	425	.....
<i>Lepus othus</i>	359	.....	272
<i>Lepus pacificus</i>	348	†744	.....
<i>Lepus paludicola</i>	341	.....	279
<i>Lepus palustris</i>	341	415	279
<i>Lepus p. paludicola</i>	341	.....	279
<i>Lepus parvulus</i>	348	421	.....
<i>Lepus peninsularis</i>	353	430	.....
<i>Lepus poadromus</i>	360	.....	272
<i>Lepus princeps</i>	338	.....	267
<i>Lepus richardsoni</i>	363	437	.....
<i>Lepus rüssatus</i>	348	420	.....
<i>Lepus saliens</i>	362	.....	276
<i>Lepus sanctidiegi</i>	345, 346	422	283
<i>Lepus simplicianus</i>	343	.....	.....
<i>Lepus sylvaticus</i>	342	.....	280
<i>Lepus s. alacer</i>	343	.....	.....
<i>Lepus s. arizonæ</i>	349	.....	.....
<i>Lepus s. aztecus</i>	344	.....	.....
<i>Lepus s. bachmani</i>	343	.....	.....
<i>Lepus s. floridanus</i>	342	.....	.....
<i>Lepus s. grangeri</i>	349	.....	.....
<i>Lepus s. holzneri</i>	345
<i>Lepus s. mearnsi</i>	342
<i>Lepus s. pinetis</i>	350
<i>Lepus s. transitionalis</i>	342

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<i>Lepus telmalemonus</i>	341	278
<i>Lepus texensis</i>	355	290
<i>Lepus t. deserticola</i>	356, 357	437	291
<i>Lepus t. eremicus</i>	355, 357	435	291
<i>Lepus t. griseus</i>	356	436	.....
<i>Lepus t. micropus</i>	356	436	.....
<i>Lepus t. wallawalla</i>	356	.....	.....
<i>Lepus texianus</i>	354, 355	.....	.....
<i>Lepus t. deserticola</i>	356	.....	.....
<i>Lepus t. eremicus</i>	355	.....	.....
<i>Lepus t. griseus</i>	356	.....	.....
<i>Lepus t. micropus</i>	356	.....	.....
<i>Lepus t. wallawalla</i>	356	.....	.....
<i>Lepus timidus</i>	340	413	269
<i>Lepus t. arcticus</i>	358	.....	270
<i>Lepus townsendi</i>	363	.....	.....
<i>Lepus trowbridgei</i>.....	.....	.....	281
<i>Lepus truei</i>	341	.....	.....
<i>Lepus truii</i>	341	415	.....
<i>Lepus tschuktschorum</i>	359	.....	271
<i>Lepus tularensis</i>	357	.....	.....
<i>Lepus veræcrucis</i>	347	420	.....
<i>Lepus v. pacificus</i>	348	.....	.....
<i>Lepus virginianus</i>	360	.....	273
<i>Lepus washingtonii</i>	361	.....	274
<i>lestes</i> . (<i>Canis</i>).....	377	465	301
<i>lesueuri</i> . (<i>Amphisorex</i>).....	446	.....	366
<i>leucas</i> . (<i>Delphinapterus</i>).....	25	.....	19
<i>leucas</i> . (<i>Delphinus</i>).....	25	.....	19
<i>Leucocyon</i>	380	465	.....
<i>leucodon</i> . (<i>Neotoma</i>).....	212	281	.....
<i>leucodon</i> . (<i>Thomomys</i>).....	273	.....	223
<i>leucogaster</i> . (<i>Hypudæus</i>).....	130	.....	119
<i>leucogaster</i> . (<i>Onychomys</i>).....	130	.....	119
<i>leucogaster</i> . (<i>Sciurus</i>).....	68	115	.....
<i>Leucomitra</i>	405, 410	507, 509	.....
<i>leucomus</i> . (<i>Arctibeus</i>).....	528	712	.....
<i>leuconotus</i> . (<i>Conepatus</i>).....	411	515	.....
<i>leucoparia</i> . (<i>Putorius f.</i>).....	432	535	.....
<i>leucoparia</i> . (<i>Spilogale</i>).....	413	.....	329
<i>leucophæus</i> . (<i>Arvicola</i>).....	245	.....	192
<i>leucophæus</i> . (<i>Microtus a.</i>).....	245	.....	192
<i>leucopla</i> . (<i>Phoca</i>).....	.....	.....	360
<i>leucopleura</i> . (<i>Dysopes</i>).....	497	623	.....
<i>Leucopleurus</i>	29	.....	.....
<i>Leucopleurus arcticus</i>	29	.....	25
<i>leucopleurus</i> . (<i>Delphinus</i>).....	29	.....	25
<i>leucops</i> . (<i>Macroxus</i>).....	69	117
<i>leucops</i> . (<i>Sciurus</i>).....	68, 72, 74	119, 123
<i>leucops</i> . (<i>Sciurus a.</i>).....	71	119

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leucopus. (Musculus)	140
leucopus. (Mustela)	419	335
leucopus. (Peromyscus)	140, 141	124, *492
leucotis. (Sciurus)	79	.....	.....
leucotis. (Sciurus c.)	79	.....	53
leucotis. (Sigmodon)	179	230, 231	.....
leucurus. (Cervus)	44	.....	39
leucurus. (Citellus)	97	142, 143	.....
leucurus. (Cynomys)	118	.....	104
leucurus. (Peromyscus)	165	200	.....
leucurus. (Spermophilus)	97	142	86.
leucurus. (Tamias)	97	142	86
levipes. (Perodipus m.)	298	.....	.....
levipes. (Peromyscus)	164	195	.....
levipes. (Reithrodontomys)	203	270	.....
levipes. (Rhithrodontomys)	203	270, 271	.....
lewisi. (Cervus)	48	.....	41
lewisi. (Cynomys)	118	.....	104
lewisi. (Arctomys)	118	.....	104
liardensis. (Ovis c.)	54	.....	47
Lichonycteris	520	683	.....
Lichonycteris obscurus	520	683	.....
lichtensteini. (Dama)	45	70	.....
lichtensteini. (Odontocælus)	45	72	.....
lilium. (Phyllostoma)	529	715	.....
lilium. (Sturnira)	529	715	.....
limitis. (Sciurus l.)	65	110	53
Limnolagus	340	413	277
limosus. (Thomomys)	278	.....	.....
lineata. (Emballonura)	492	609	.....
lineata. (Phocæna)	25	48	20
lineatum. (Phyllostoma)	525	702	.....
lineatus. (Vampyrops)	525	702	.....
Linx	365	443	293
Liomys	316, 319	368, 374	.....
Liomys canus	321	375	.....
Liomys crispus	320	380	.....
Liomys c. setosus	320	.....	.....
Liomys heterothrix	320	380	.....
Liomys obscurus	319	379	.....
Liomys orbitalis	320	380	.....
Liomys parviceps	322	378	.....
Liomys phæura	319	379	.....
Liomys pictus	323	.....	.....
Liomys p. isthmius	322	378	.....
Liomys p. rostratus	322	378	.....
Liomys plantinarenis	322	377	.....
Liomys sonorana	323	379	.....
Liomys texensis	323	.....	.....

*Supplement.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Liomys torridus</i>	321	376	.....
<i>Liomys t. minor</i>	321	377	.....
<i>Liomys verærucis</i>	319	379	.....
<i>Lipura</i>	119	.....	.....
<i>Lissodelphis</i>	32	.....	29
<i>Lissodelphis borealis</i>	32	.....	30
<i>littoralis</i> . (<i>Neotoma m.</i>)	209	.....	.....
<i>littoralis</i> . (<i>Sigmodon h.</i>)	175	.....	144
<i>littoralis</i> . (<i>Tamias t.</i>)	87	.....	.....
<i>littoralis</i> . (<i>Urocyon c.</i>)	388, 389	.....	†507
<i>littoralis</i> . (<i>Vulpes</i>)	388	.....	.....
<i>littorea</i> . (<i>Phoca</i>)	442	.....	363
<i>lobatus</i> . (<i>Cervus</i>)	41	.....	38
<i>Lobostoma</i>	503	639	.....
<i>Lobostoma cinnamomeum</i>	507	649	.....
<i>Lobostoma quadridens</i>	504	641	.....
<i>Loncheres</i>	328	383	.....
<i>Loncheres labilis</i>	328	384	.....
<i>Loncherinæ</i>	328	382	.....
<i>Lonchetes</i>	328	383	.....
<i>Lonchorina</i>	507	649	.....
<i>Lonchorina aurita</i>	507, 508	650	.....
<i>longicauda</i> . (<i>Mustela</i>)	430	.....	.....
<i>longicauda</i> . (<i>Reithrodon</i>)	195	261	151
<i>longicauda</i> . (<i>Sorex o.</i>)	450	.....	.....
<i>longicaudata</i> . (<i>Talpa</i>)	467	.....	.....
<i>longicaudatus</i> . (<i>Heteromys</i>)	317, 318	370, 372	.....
<i>longicaudatus</i> . (<i>Molossus</i>)	495	620	.....
<i>longicaudus</i> . (<i>Arvicola</i>)	243	.....	191
<i>longicaudus</i> . (<i>Dasypus</i>)	13	33	4
<i>longicaudus</i> . (<i>Microtus</i>)	243, 244	.....	191
<i>longicaudus</i> . (<i>Onychomys</i>)	132	.....	121
<i>longicaudus</i> . (<i>Phenacomys</i>)	228	.....	169
<i>longicaudus</i> . (<i>Putorius</i>)	430	.....	348
<i>longicaudus</i> . (<i>Reithrodontomys</i>)	195, 196	261	151, 153
<i>longicaudus</i> . (<i>Rhithrodontomys</i>)	195, 196	261, 262	.....
<i>longicaudus</i> . (<i>Sorex o.</i>)	450, 451	.....	372
<i>longicrus</i> . (<i>Myotis l.</i>)	479	581	402
<i>longicrus</i> . (<i>Vespertilio</i>)	479	581	402
<i>longidens</i> . (<i>Delphinus</i>)	30	.....	27
<i>longimana</i> . (<i>Balæna</i>)	17	.....	10
<i>longimana</i> . (<i>Megaptera</i>) .....	.....	41	10
<i>longimanus</i> . (<i>Dysopes</i>)	497	623	.....
<i>longimembris</i> . (<i>Otognosis</i>)	306	.....	247
<i>longimembris</i> . (<i>Perognathus</i>)	306	.....	247
<i>longipes</i> . (<i>Dipodops</i>)	298	.....	239
<i>longipes</i> . (<i>Onychomys</i>)	131	167	120
<i>longipes</i> . (<i>Onychomys l.</i>)	131	120
<i>longipes</i> . (<i>Perodipus</i>)	298	239

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
longipilis. (Arvicola r.)	235	.....	180
longirostris. (Arvicola)	238	.....	182
longirostris. (Delphinus)	33	58	.....
longirostris. (Prodelphinus)	33	58	.....
longirostris. (Sorex)	453	.....	375
Lophostoma	572	658	.....
lophurus. (Peromyscus)	167	204	.....
loquax. (Sciurus h.)	80	.....	62
lordi. (Abromys)	308	.....	250
lordi. (Perognathus)	308	.....	250
loringi. (Eutamias g.)	231	.....	173
lotor. (Procyon)	400	.....	317
lotor. (Ursus)	400	.....	.....
louisianæ. (Odocoileus v.)	44	.....	.....
louisianæ. (Odontocelus a.)	44	.....	.....
lucasana. (Spilogale)	416	523	.....
luciæ. (Monophyllus)	518	678	.....
luciæ. (Moschophoromys)	190	251	.....
luciæ. (Oryzomys)	190	251	.....
luciæ. (Stenoderma)	527	706	.....
lucifugus. (Myotis)	478	580	402
lucifugus. (Vespertilio)	478	.....	402
ludovicianus. (Arctomys)	117	.....	102
ludovicianus. (Cynomys)	117	.....	102
ludovicianus. (Microtus)	248	.....	197
ludovicianus. (Sciurus)	64, 74	124	52
ludovicianus. (Sciurus n.)	64	110	.....
Lupus	374	464	.....
Lupus albus	375	.....	.....
Lupus ater	376	.....	.....
Lupus griseus	375	.....	.....
Lupus stictæ	375	.....	.....
lupus. (Canis) .....	.....	.....	299
luscus. (Gulo)	416	.....	333
luscus. (Ursus)	416	.....	.....
luteiventris. (Tamias q.)	92	.....	76
lutensis. (Putorius)	425	.....	340
luteolus. (Ursus)	395	.....	314
lutescens. (Geomys)	263	.....	218
lutescens. (Geomys b.)	263	.....	298
luteus. (Gulo)	417	.....	.....
luteus. (Peromyscus)	147	.....	.....
Lutra	433	535	352
Lutra annectens	435	536	.....
Lutra canadensis	433	.....	352
Lutra c. lataxina	433	.....	352
Lutra c. pacifica	434	.....	353
Lutra c. sonora	434	535	353
Lutra c. vaga	434	.....	352

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc
<i>Lutra degener</i>	435	.....	353
<i>Lutra destructor</i> .....	.....	.....	352
<i>Lutra hudsonica</i>	433	.....	352
<i>Lutra h. pacifica</i>	434	.....	.....
<i>Lutra h. sonora</i>	434	.....	.....
<i>Lutra h. vaga</i>	434	.....	.....
<i>Lutra marina</i>	435	537	354
<i>Lutra periclyzomæ</i>	434	.....	.....
<i>Lutra sarcovienna</i>	1	3	.....
<i>Lutra stelleri</i>	436	537	354
<i>lutra. (Mustela)</i>	433	535	352
<i>lutreocephala. (Mustela)</i>	423	.....	.....
<i>lutreocephalus. (Putorius v.)</i>	423	.....	339
<i>Lutreola</i>	423	530	338
<i>Lutreola v. ingens</i>	424	.....	.....
<i>Lutreola v. lacustris</i>	424	.....	.....
<i>lutreola. (Mustela)</i>	423	.....	.....
<i>Lutrinae</i>	433	535	351
<i>lutris. (Mustela)</i>	435	537	354
<i>Lyciscus</i>	374	465	.....
<i>Lyciscus cagottis</i>	378	.....	.....
<i>lyelli. (Sorex t.)</i>	453	.....	.....
<i>Lynceus</i>	365	443	.....
<i>Lynchailurus</i>	365	443	.....
<i>Lynchus</i>	365	443	293
<i>Lynx</i>	365, 370	443, 456	295
<i>Lynx baileyi</i>	372	.....	.....
<i>Lynx canadensis</i>	370	.....	.....
<i>Lynx c. mollipilosus</i>	370	.....	295
<i>Lynx fasciatus</i>	371	.....	297
<i>Lynx f. oculus</i>	371	.....	297
<i>Lynx f. pallescens</i>	371	.....	297
<i>Lynx floridanus</i>	372	.....	.....
<i>Lynx gigas</i>	373	.....	299
<i>Lynx r. californicus</i>	372	458	298
<i>Lynx r. eremicus</i>	372	458	298
<i>Lynx r. escuinapæ</i>	372	.....	.....
<i>Lynx r. peninsularis</i>	373	.....	.....
<i>Lynx subsolanus</i>	370	.....	296
<i>Lynx texensis</i>	371	.....	.....
<i>Lynx uinta</i>	373	.....	.....
<i>Lysiurus</i>	12	.....	.....
<i>lysteri. (Sciurus)</i>	95	.....	.....
<i>lysteri. (Tamias s.)</i>	95	.....	80
<i>macfarlani. (Lepus a.)</i>	362	.....	275
<i>macfarlani. (Microtus)</i>	241	.....	187
<i>macfarlanii. (Lepus a.)</i>	362	.....	.....
<i>macfarlanii. (Microtus)</i>	241	.....	.....

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
machetes. (Blarina m.)	465	561	.....
machetes. (Ursus)	396	481	.....
machlis. (Alces)	41	.....	37
machrina. (Talpa)	470	.....	389
machrinus. (Scalops a.)	470	.....	389
machrinus. (Scalopus a.)	470	.....	389
mackenzii. (Phenacomys)	228	.....	.....
macleayi. (Chilonycteris)	504	641	.....
macleayii. (Chilonycteris)	503, 504	.....	.....
Macleayius	15	.....	8
macrocephalus. (Catodon)	21	.....	.....
macrocephalus. (Physeter)	21	45	.....
Macrocolus	288	.....	231
macrodon. (Fiber)	255	.....	214
macrodon. (Sorex)	455	552	.....
Macrogeomys	270	326	.....
Macrogeomys cavator	270	329	.....
Macrogeomys cherrii	271	330	.....
Macrogeomys costaricensis	271	330	.....
Macrogeomys dolichocephalus	270	328	.....
Macrogeomys heterodus	270	328	.....
Macrogeomys pansa	271	329	.....
macropus. (Arvicola)	251	.....	201
macropus. (Microtus r.)	251	.....	201
macrorhabdotes. (Tamias)	88	.....	71
Macrorhinus	439	545	359
Macrorhinus angustirostris	440	.....	359
macrorhinus. (Peromyscus)	152	.....	133
macrorhinus. (Sitomys)	152	.....	133
macrorhynchus. (Glabiocephalus)	27	53	23
macrospilotus. (Citellus s.)	99	145	.....
macrospilotus. (Spermophilus s.)	99	145	96
macrotarsus. (Didelphys)	2	.....	.....
Macrotis	43	68	.....
macrotis. (Cervus)	48	76	42
macrotis. (Corynorhinus)	490	.....	399
macrotis. (Neotoma)	206	.....	.....
macrotis. (Neotoma f.)	206, 207	279	159
macrotis. (Nyctinomops)	499	627	.....
macrotis. (Nyctinomus)	499	627	.....
macrotis. (Onychomys)	134	169	.....
macrotis. (Plecotus)	490	.....	399
macrotis. (Sciuropterus s.)	124	.....	108
macrotis. (Vulpes)	384, 385	472	306
Macrotolagus	340, 353	413	269, 288
Macrotus	508	652	.....
Macrotus bocourtianus	510	654	.....
Macrotus bulleri	510	654
Macrotus californicus	509	653	420
Macrotus mexicanus	510	653

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macroura. (Condylura).....	467	395
macroura. (Felis).....	367	449
macroura. (Mephitis).....	410
macroura. (Sciurus).....	64	.....	52
macroura. (Vulpes f.).....	380	.....	305
macroura. (Vulpes p.).....	380	.....	.....
macrourus. (Cervus).....	44	.....	39
macrourus. (Odocoileus a.).....	44	.....	39
macrourus. (Odontocælus a.).....	44	.....	.....
macrourus. (Spermophilus).....	113	149	88
macrourus. (Vulpes).....	380	.....	305
Macroxus.....	59	93	50
Macroxus adolphei.....	75	126	.....
Macroxus griseoflavus.....	74	.....	.....
Macroxus leucops.....	69	117	.....
Macroxus maurus.....	69	116	.....
Macroxus melania.....	76	.....	.....
Macroxus morio.....	68	116	.....
Macroxus neglectus.....	65	.....	.....
macrura. (Mephitis).....	410	510	.....
macrurum. (Spectrellum).....	501	634	.....
macrurus. (Microtus).....	244	.....	191
macrurus. (Sorex).....	448	.....	369
maculata. (Euderma).....	490	.....	398
maculata. (Felis).....	371, 372	.....	296
maculata. (Felis r.).....	371	.....	296
maculatum. (Euderma).....	490	.....	.....
maculatus. (Felis r.).....	.....	.....	298
maculatus. (Histiotus).....	490	.....	398
Madatæus.....	522	691	.....
madrensis. (Callospermophilus).....	106	147	.....
madrensis. (Citellus).....	106	147	.....
madrensis. (Neotoma m.).....	213	.....	.....
madrensis. (Peromyscus).....	164	197	.....
magna. (Blarina).....	466	562	.....
magnicaudatus. (Sciurus).....	65	.....	52
magruderensis. (Perognathus m.).....	307	.....	249
magruderensis. (Perognathus p.).....	307	.....	.....
major. (Aplodontia).....	127	.....	112
major. (Chincha o.).....	409	.....	.....
major. (Citellus s.).....	99	.....	.....
major. (Delphinus).....	30	55	28
major. (Lepus a.).....	350	423	286
major. (Mephitis o.).....	409
major. (Natalus).....	501	633

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major. (<i>Natalis</i> s.).....	501	633
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major. (<i>Peromyscus</i>).....	155	137
major. (<i>Sigmodon</i> h.).....	177	226, 228
major. (<i>Sitomys</i>).....	155	137
major. (<i>Spectrellum</i> s.).....	501
major. (<i>Spermophilus</i> s.).....	99	96
major. (<i>Zapus</i>).....	326	260
makkovikensis. (<i>Sciuropterus</i> s.).....	125
mallurus. (<i>Lepus</i> f.).....	342	280
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Mammalia.....	I	I	I
managuensis. (<i>Sciurus</i>).....	77	129
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Manatidæ.....	5
Manatus.....	14	36	5
Manatus americanus.....	14	37	6
Manatus australis.....	14	37	6
Manatus fluviatilis.....	14	37	6
Manatus gigas.....	14	5
Manatus latirostris.....	14	37	6
manatus. (<i>Trichechus</i>).....	14	35, 37	6
maniculatus. (<i>Hesperomys</i>).....	148	131
maniculatus. (<i>Peromyscus</i>).....	148	131
mapurito. (<i>Conepatus</i>).....	412	516	*510
margaritæ. (<i>Perognathus</i>).....	316	363
Margay.....	365	443
marginatus. (<i>Citellus</i> s.).....	100
marginatus. (<i>Clymene</i>).....	31	55	28
marginatus. (<i>Delphinus</i>).....	34	58	30
marginatus. (<i>Spermophilus</i> s.).....	100
Marikina.....	532	724
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marinus. (<i>Leo</i>).....	437
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Marmosa cinerea.....	3	7
Marmosa fulviventer.....	3	8
Marmosa insularis.....	3	7
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Marmosa m. mexicana.....	2	6
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marsupialis. (Didelphys).....	7
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martinensis. (Neotoma).....	214
martirensis. (Lepus).....	358	439
martirensis. (Sitomys).....	159	189
martirensis. (Spilogale a.).....	414	521
martirensis. (Thomomys).....	282	336
martirensis. (Thomomys f.).....	282
mascotensis. (Sigmodon).....	176	227, 229
mascotensis. (Sigmodon h.).....	176	227
mastivus. (Noctilio l.).....	494	617
mastivus. (Vespertilio).....	494	617
maurus. (Macroxus).....	69	116
maximus. (Perognathus h.).....	310
maximus. (Phyllostomus).....	514	666
mayensis. (Blarina).....	465	561
maynardi. (Procyon).....	402	490
Mazama.....	43, 50	68, 79
Mazama h. peninsulæ.....	50	78
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mazama. (Evotomys).....	232	175
mazama. (Thomomys).....	275	225
mcmurtrei. (Centurio).....	530	717
mearnsi. (Canis).....	377	468	302
mearnsi. (Conepatus m.).....	411	516
mearnsi. (Felis p.).....	366	448
mearnsi. (Lepus f.).....	342	280
mearnsi. (Lepus s.).....	342
mearnsi. (Perognathus).....	302	353	243
mearnsi. (Peromyscus).....	150	132
mearnsi. (Sciurus d.).....	83	133
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megacephalus. (<i>Tachynices</i>).....	24
megadon. (<i>Oryzomys r.</i>).....	188	243
Megadontomys.....	171	212
Megadontomys flavidus.....	172	214	.....
Megadontomys nelsoni.....	172	214	.....
Megadontomys thomasi.....	171	213	.....
Megalomys.....	189	250	.....
megalophylla. (<i>Mormops</i>).....	506	648	418
megalops. (<i>Peromyscus</i>).....	170	210	.....
megalotis. (<i>Hesperomys</i>).....	157	.....	139
megalotis. (<i>Micronycteris</i>).....	513	662	.....
megalotis. (<i>Peromyscus</i>).....	157	.....	139
megalotis. (<i>Phyllophora</i>).....	513	662	.....
megalotis. (<i>Potos f.</i>).....	404	.....	.....
megalotis. (<i>Reithrodon</i>).....	193	259	151
megalotis. (<i>Reithrodontomys</i>).....	193	.....	151
megalotis. (<i>Rhithrodontomys</i>).....	193	259	.....
Megaptera.....	17	40	9
Megaptera americana.....	17	.....	10
Megaptera kuzira.....	16	.....	9
Megaptera longimana.....	.....	41	10
Megaptera nodosa.....	17	.....	10
Megaptera n. bellicosa.....	18	41	.....
Megaptera n. osphyia.....	17	.....	10
Megaptera versabilis.....	18	41	10
Megapteron.....	17	40	9
Megapteropsis.....	17	41	9
Megascapheus.....	272
mekisturus. (<i>Peromyscus</i>).....	171	212
melampeplus. (<i>Putorius</i>).....	425
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melania. (<i>Macroxus</i>).....	76
melania. (<i>Sciurus</i>).....	76	128
melanocarpus. (<i>Peromyscus</i>).....	170	210
melanochir. (<i>Ateles</i>).....	535	733	.....
melanonotus. (<i>Sciurus n.</i>).....	62	107	.....
melanophrys. (<i>Hesperomys</i>).....	166	201	.....
melanophrys. (<i>Onychomys</i>).....	131, 132	166	.....
melanophrys. (<i>Onychomys l.</i>).....	131	.....	120
melanophrys. (<i>Peromyscus</i>).....	166	201	.....
melanops. (<i>Eptesicus</i>).....	483	587	410
melanops. (<i>Thomomys</i>).....	279	.....	227
melanopterus. (<i>Eptesicus f.</i>).....	483	.....	.....
melanopterus. (<i>Vespertilio f.</i>).....	483	.....	.....
melanopus. (<i>Arctomys</i>).....	120	106
melanorhinus. (<i>Vespertilio</i>).....	476	578
melanorhyncha. (<i>Mustela</i>).....	422	335

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melanotis. (Lepus).....	355	290
melanotis. (Oryzomys).....	187	244, 243
melanotis. (Perognathus a.).....	303	356
melanotis. (Peromyscus).....	161	178	.....
melanotis. (Sigmodon).....	180	232	.....
melanura. (Neotoma i.).....	217, 218	284	.....
melanurus. (Capromys).....	330	391	.....
melanurus. (Dipodomys m.).....	291	348	.....
melanurus. (Tamias m.).....	94	.....	79
melas. (Delphinus).....	27	52	.....
melas. (Globicephalus).....	27	52	.....
melas. (Globiocephalus).....	27	53	23
Meles jeffersoni.....	404	.....	320
Meles t. americanus.....	404	.....	.....
Melinae.....	404	503	319
Memina.....	I	.....	.....
memina. (Didelphis).....	I	3	.....
mephitica. (Mephitis).....	406	.....	322
Mephitis.....	405	507	322
Mephitis a. hudsonica.....	406	.....	.....
Mephitis avia.....	407	.....	327
Mephitis bicolor.....	412	.....	328
Mephitis concolor.....	410	512	.....
Mephitis elongata.....	406	.....	324
Mephitis estor.....	407	.....	326
Mephitis fetidissima.....	406	.....	.....
Mephitis fœtulenta.....	408	.....	326
Mephitis hudsonia.....	406	.....	322
Mephitis interrupta.....	412	.....	.....
Mephitis leuconota.....	411	.....	.....
Mephitis macroura.....	410	.....	.....
Mephitis macrura.....	410	510	.....
Mephitis m. milleri.....	410	511	.....
Mephitis m. vittata.....	410	512	.....
Mephitis mephitica.....	406	.....	322
Mephitis m. elongata.....	406	.....	.....
Mephitis m. hudsonia.....	406	.....	.....
Mephitis m. scrutator.....	407	.....	324
Mephitis mephitis.....	406	.....	.....
Mephitis mesoleuca.....	411	.....	.....
Mephitis mesomelas.....	407	.....	325
Mephitis m. avia.....	407	.....	.....
Mephitis m. estor.....	407	509	.....
Mephitis m. varians.....	407	.....	.....
Mephitis milleri.....	410	325
Mephitis occidentalis.....	408, 409	324
Mephitis o. holzneri.....	409	507
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Mephitis o. notata.....	408
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<i>Mephitis olida</i>	406
<i>Mephitis platyrhina</i>	409
<i>Mephitis putida</i>	406
<i>Mephitis quaterlinearis</i>	413	328
<i>Mephitis spissigrada</i>	408	.....	326
<i>Mephitis varians</i>	407	.....	322
<i>Mephitis vittata</i>	410	.....	.....
<i>Mephitis v. intermedia</i>	410	.....	.....
<i>mephitis</i> . (<i>Viverra</i>).....	406	.....	.....
<i>meridionalis</i> . (<i>Orca</i>).....	27	51	23
<i>Meriones</i>	324	.....	.....
<i>Meriones acadicus</i>	324	.....	257
<i>Meriones labradorius</i>	328	.....	263
<i>Meriones microcephalus</i>	324	.....	257
<i>merriami</i> . (<i>Cervus</i>).....	42	.....	.....
<i>merriami</i> . (<i>Cratogeomys</i>).....	265	313	.....
<i>merriami</i> . (<i>Dipodomys</i>).....	288	345	232
<i>merriami</i> . (<i>Geomys</i>).....	264	.....	.....
<i>merriami</i> . (<i>Lepus</i>).....	354	432	289
<i>merriami</i> . (<i>Perognathus</i>).....	301	353	243
<i>merriami</i> . (<i>Peromyscus</i>).....	165	198	.....
<i>merriami</i> . (<i>Reithrodontomys</i>).....	192	.....	150
<i>merriami</i> . (<i>Rhithrodontomys</i>).....	192	.....	.....
<i>merriami</i> . (<i>Sorex</i>).....	454	.....	376
<i>merriami</i> . (<i>Tamias</i>).....	88	136, 137	71
<i>merriami</i> . (<i>Tamias a.</i>).....	88	.....	.....
<i>merriami</i> . (<i>Ursus</i>).....	391	.....	.....
<i>merriami</i> . (<i>Vesperugo</i>).....	480	582	409
<i>mesamericana</i> . (<i>Didelphis</i>).....	6	15	.....
<i>mesamericana</i> . (<i>Didelphys</i>).....	6	15	.....
<i>mesembrinus</i> . (<i>Perognathus</i>).....	308	.....	.....
<i>mesoleuca</i> . (<i>Mephitis</i>).....	411	.....	.....
<i>mesoleucus</i> . (<i>Conepatus</i>).....	411	515	.....
<i>mesomelas</i> . (<i>Mephitis</i>).....	407	.....	325
<i>mesomelas</i> . (<i>Peromyscus t.</i>).....	147	177	.....
<i>Mesoodon</i>	22	.....	.....
<i>Mesoplodon</i>	23	.....	17
<i>Mesoplodon bidens</i>	23	.....	18, *480
<i>Mesoplodon stejnegeri</i>	23	.....	14, *481
<i>mesopolius</i> . (<i>Perognathus f.</i>).....	315	367	.....
<i>Metachirus</i>	4	11	.....
<i>Metachirus fuscogriseus</i>	5	12, 13	.....
<i>Metachirus f. pallidus</i>	5	13	.....
<i>Metachirus nudicaudatus</i>	4, 5	12	.....
<i>Metachirus opossum</i>.....	.....	12	.....
<i>metallescens</i> . (<i>Scalops</i>).....	468	.....	391
<i>metallicola</i> . (<i>Peromyscus</i>).....	138	192
<i>Meteorus</i>	482	586	410
<i>metis</i> . (<i>Delphinus</i>).....	31	56	29

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mexicana. (Antilocapra a.).....	51	82
mexicana. (Atalapha).....	486	594
mexicana. (Blarina).....	464	560
mexicana. (Chilonycteris).....	506	644	.....
mexicana. (Chæronycteris).....	517	673	.....
mexicana. (Dasypsecta).....	336	405	.....
mexicana. (Felis).....	.....	.....	294
mexicana. (Hystrix).....	335	402	.....
mexicana. (Marmosa m.).....	2	6	.....
mexicana. (Neotoma).....	213	282	158
mexicana. (Tylostoma).....	514	665	.....
mexicanum. (Coendu).....	335	402	.....
mexicanum. (Spectrellum).....	502	.....	.....
mexicanus. (Arvicola).....	245	301	.....
mexicanus. (Canis).....	375, 376	471	.....
mexicanus. (Centurio).....	530	717	.....
mexicanus. (Cervus).....	45	70, 72	40
mexicanus. (Citellus).....	103	146	.....
mexicanus. (Citillus).....	103	146	.....
mexicanus. (Cynomys).....	119	156	.....
mexicanus. (Hesperomys).....	168	207	.....
mexicanus. (Lasiurus b.).....	486	594	.....
mexicanus. (Lepus).....	353	431	288
mexicanus. (Macrotus).....	510	653	.....
mexicanus. (Micronycteris m.).....	513	662	.....
mexicanus. (Microtus).....	245	301	.....
mexicanus. (Myotis c.).....	477	579	.....
mexicanus. (Natalis).....	502	633	.....
mexicanus. (Natalus).....	502	633	.....
mexicanus. (Nyctinomus).....	500	629	417
mexicanus. (Ochetodon).....	198	.....	.....
mexicanus. (Oryzomys).....	184	242, 246	.....
mexicanus. (Otopterus).....	510	653	.....
mexicanus. (Ovis).....	54	.....	.....
mexicanus. (Ovis c.).....	54	86	.....
mexicanus. (Perognathus f.).....	303	355	.....
mexicanus. (Peromyscus).....	168	207	.....
mexicanus. (Reithrodon).....	197	264	.....
mexicanus. (Rhithrodontomys).....	197	264, 265	.....
mexicanus. (Sciurus).....	103	146	.....
mexicanus. (Spermophilus).....	99, 103	145, 146	96, 98
mexicanus. (Vespertilio).....	477	579	.....
michiganensis. (Mus).....	160	.....	140
michiganensis. (Peromyscus).....	160	.....	140
Micoureus.....	1	5	.....
microcephalus. (Arvicola).....	236	181
microcephalus. (Meriones).....	324	257
microcephalus. (Monodon).....	24	19
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<i>Microdipodops californicus</i>	300
<i>Microdipodops megacephalus</i>	299, 300	241
<i>Microdipodops m. oregonus</i>	299	.....	.....
<i>Microdipodops pallidus</i>	299	.....	.....
<i>microdon</i> . (<i>Canis</i>).....	379	469	.....
<i>microdon</i> . (<i>Reithrodontomys</i>).....	201	269	.....
<i>microdon</i> . (<i>Rhithrodontomys</i>).....	201, 202	269	.....
<i>microdon</i> . (<i>Sigmodon h.</i>).....	178	226	.....
<i>microdon</i> . (<i>Stenoderma</i>).....	528	.....	.....
<i>Microlagus</i>	340, 352	413, 428	269, 287
<i>Micronycteris</i>	512	660	.....
<i>Micronycteris hirsutus</i>	512	661	.....
<i>Micronycteris megalotis</i>	513	662	.....
<i>Micronycteris m. mexicanus</i>	513	662	.....
<i>Micronycteris microtis</i>	513	663	.....
<i>microps</i> . (<i>Delphinus</i>).....	31, 33	55, 58	28
<i>microps</i> . (<i>Perodipus</i>).....	297, 298	.....	.....
<i>micropterus</i> . (<i>Delphinus</i>).....	23	.....	18
<i>micropus</i> . (<i>Chilonatalis</i>).....	502	635	.....
<i>micropus</i> . (<i>Lepus t.</i>).....	356	436	.....
<i>micropus</i> . (<i>Natalus</i>).....	502	635	.....
<i>micropus</i> . (<i>Neotoma</i>).....	208	281	155
<i>Microsciurus</i>	59, 60	94, 98	.....
<i>Microsorex</i>	456	.....	377
<i>Microsorex alnorum</i>	457	.....	.....
<i>Microsorex eximius</i>	457	.....	.....
<i>Microsorex hoyi</i>	457	.....	377
<i>Microspilotus</i>	99	.....	.....
<i>microtarsus</i> . (<i>Didelphys</i>).....	2	.....	.....
<i>Microtinæ</i>	226	298	167
<i>microtis</i> . (<i>Micronycteris</i>).....	573	663	.....
<i>microtis</i> . (<i>Putorius</i>).....	426	.....	.....
<i>Microtus</i>	233, 234	298	178, 179
<i>Microtus abbreviatus</i>	243	.....	189
<i>Microtus a. fisheri</i>	243	.....	190
<i>Microtus alleni</i>	252	.....	203
<i>Microtus alticola</i>	244	.....	192
<i>Microtus a. leucophæus</i>	245	.....	192
<i>Microtus angusticeps</i>	244	.....	192
<i>Microtus aphorodemus</i>	237	.....	.....
<i>Microtus austerus</i>	248	.....	196
<i>Microtus aztecus</i>	237	.....	182
<i>Microtus bairdi</i>	250	.....	200
<i>Microtus borealis</i>	247	.....	194
<i>Microtus breweri</i>	238	.....	182
<i>Microtus californicus</i>	240	.....	186
<i>Microtus c. constrictus</i>	241	.....	186
<i>Microtus c. hyperythrus</i>	240	302
<i>Microtus c. vallicola</i>	240	186
<i>Microtus canicaudus</i>	239	185

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<i>Microtus cautus</i>	244	191
<i>Microtus chrotorrhinus</i>	246	193
<i>Microtus c. ravidus</i>	247	193
<i>Microtus curtatus</i>	247	.....	195
<i>Microtus drummondi</i>	236, 237	.....	181
<i>Microtus dutcheri</i>	239	.....	185
<i>Microtus edax</i>	241	.....	187
<i>Microtus enixus</i>	237	.....	182
<i>Microtus fontigenus</i>	236	.....	181
<i>Microtus fulviventris</i>	246	301	.....
<i>Microtus guatemalensis</i>	251	306	.....
<i>Microtus haydeni</i>	248	.....	197
<i>Microtus innuitus</i>	242	.....	189
<i>Microtus insularis</i>	238	.....	182
<i>Microtus kadiacensis</i>	242	.....	188
<i>Microtus longicaudus</i>	243, 244	.....	191
<i>Microtus ludovicianus</i>	248	.....	197
<i>Microtus macfarlandi</i>	241	.....	187
<i>Microtus macfarlandii</i>	241	.....	.....
<i>Microtus macrurus</i>	244	.....	191
<i>Microtus mexicanus</i>	245	301	.....
<i>Microtus m. guadalupensis</i>	245	.....	.....
<i>Microtus m. phæus</i>	245	302	.....
<i>Microtus minor</i>	248	.....	197
<i>Microtus mogollonensis</i>	245, 246	.....	192
<i>Microtus montanus</i>	238	.....	182
<i>Microtus m. arizonensis</i>	238	.....	183
<i>Microtus m. rivularis</i>	239	.....	183
<i>Microtus mordax</i>	244	.....	191
<i>Microtus morosus</i>	250	.....	200
<i>Microtus nanus</i>	239	.....	184
<i>Microtus n. canescens</i>	239	.....	185
<i>Microtus nemoralis</i>	249	.....	199
<i>Microtus nesophilus</i>	238	.....	182
<i>Microtus nevadensis</i>	240	.....	185
<i>Microtus n. rivularis</i>	239	.....	.....
<i>Microtus operarius</i>	241	.....	187
<i>Microtus oregoni</i>	250	.....	200
<i>Microtus pallidus</i>	247	.....	195
<i>Microtus pauperrimus</i>	247	.....	195
<i>Microtus pennsylvanicus</i>	234, 235	.....	179
<i>Microtus p. acadicus</i>	235	.....	180
<i>Microtus p. fontigenus</i>	236	.....	181
<i>Microtus p. labradorius</i>	236	.....	181
<i>Microtus p. modestus</i>	236	.....	180
<i>Microtus p. nigrans</i>	235	.....	180
<i>Microtus p. shattucki</i>	235	.....	.....
<i>Microtus pinetorum</i>	249	198
<i>Microtus p. auricularis</i>	249	198
<i>Microtus p. nemoralis</i>	249	199

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<i>Microtus pumilus</i>	227	168
<i>Microtus quasiater</i>	249, 250	303
<i>Microtus richardsoni</i>	250	200
<i>Microtus r. arvicoloides</i>	251	.....	202
<i>Microtus r. macropus</i>	251	.....	201
<i>Microtus scirpensis</i>	241	.....	187
<i>Microtus serpens</i>	250	.....	200
<i>Microtus sitkensis</i>	242	.....	189
<i>Microtus stonei</i>	236	.....	181
<i>Microtus terrænovæ</i>	238	.....	182
<i>Microtus tetramerus</i>	243	.....	190
<i>Microtus townsendi</i>	243	.....	190
<i>Microtus umbrosus</i>	251	305	.....
<i>Microtus unalascensis</i>	242	.....	188
<i>Microtus u. popofensis</i>	242	.....	188
<i>Microtus vellerosus</i>	244	.....	191
<i>Microtus xanthognathus</i>	246	.....	193
<i>Microtus yakutatensis</i>	242	.....	188
<i>microtus. (Canis)</i>	384	.....	.....
<i>micrura. (Blarina)</i>.....	.....	559	.....
<i>Micrurus</i>	234	299	178
<i>micrurus. (Galemys)</i>	461	.....	382
<i>Mictomys</i>	256	.....	205
<i>Mictomys innuitus</i>	256	.....	205
<i>Midas</i>	532	723	.....
<i>Midas geoffroyi</i>	532	724	.....
<i>middendorffi. (Ursus)</i>	390	.....	310
<i>migratorius. (Sciurus)</i>	79	.....	54
<i>milleri. (Mephitis)</i>	410	.....	325
<i>milleri. (Mephitis m.)</i>	410	511	.....
<i>milleri. (Myotis)</i>	474	575	.....
<i>mimus. (Sciurus a.)</i>	66	.....	.....
<i>minima. (Lutra)</i>	1	3	.....
<i>minimus. (Chironectes)</i>	1	3	.....
<i>minimus. (Lagomys)</i>	339	.....	269
<i>minimus. (Ochotona)</i>	339	.....	269
<i>minimus. (Sigmodon)</i>	178	230	146
<i>minimus. (Tamias)</i>	93	.....	78
<i>minnesota. (Sciurus h.)</i>	81	.....	62
<i>minnesota. (Peromyscus l.)</i>	141	.....	.....
<i>minor. (Antrozous)</i>	492	607	.....
<i>minor. (Arvicola a.)</i>	248	.....	197
<i>minor. (Centurio)</i>	530	717	.....
<i>minor. (Chæronycteris)</i>	517	674
<i>minor. (Heteromys t.)</i>	321	377
<i>minor. (Lepus a.)</i>	350	423	286
<i>minor. (Liomys t.)</i>	321	377
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minuscus. (Scapanus c.).....	469	†435
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miscix. (Sorex p.).....	454
Misothermus.....	260	209
mississippiensis. (Peromyscus g.).....	143	127
missoulæ. (Oreamnos m.).....	52
missoulæ. (Oreamnus m.).....	52
missouriensis. (Arctomys).....	117	102
missouriensis. (Mus).....	130	119
mittelli. (Dipodomys).....	291	344
mitis. (Felis).....	367	449
mitis. (Marmosa).....	8
mitrata. (Phoca).....	440	360
mobilenis. (Geomys t.).....	262	216
modesta. (Arvicola).....	236	180
modestus. (Microtus p.).....	236	180
mogollónensis. (Arvicola).....	246	192
mogollónensis. (Microtus).....	245, 246	192
mogollónensis. (Sciurus f.).....	84	67
mogollónensis. (Sciurus h.).....	84	67
mohavensis. (Citellus t.).....	102
mohavensis. (Neotoma).....	207
mohavensis. (Neotoma f.).....	207
mohavensis. (Nyctinomus).....	500	629	418
mohavensis. (Spermophilus).....	102	98
molaris. (Nasua n.).....	402, 403	497
molestus. (Oryzomys).....	183	240
mollipilosa. (Felis c.).....	370
mollipilosus. (Felis c.).....	370	295
mollipilosus. (Lynx c.).....	370	295
mollipilosus. (Perognathus).....	307	249
mollipilosus. (Perognathus m.).....	307	249
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Molossus aztecus.....	495	620
Molossus californicus.....	498
Molossus coibensis.....	496
Molossus ferox.....	497	623
Molossus fuliginosus.....	495	620	417
Molossus fumarius.....	496	621
Molossus longicaudatus.....	495	620
Molossus nasutus.....	496
Molossus nigricans.....	496	620
Molossus obscurus.....	495, 496	620
Molossus rufus.....	495	619
Molossus r. obscurus.....	495	620
Molossus tropidorhynchus.....	496	620
Molossus ursinus.....	495	619
Monachus.....	444	542
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monachus. (Phoca).....	444
monachus. (Vespertilio).....	485	593	412
Monax.....	117	102
monax. (Arctomys).....	119	105
monax. (Marmota).....	119
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mondini. (Balænoptera).....	19
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Monophyllus cubanus.....	519	678
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Monophyllus plethodon.....	518	677
Monophyllus portoricensis.....	518	677
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montanus. (Rhithrodontomys)	193
montanus. (Zapus)	327	262
montanus. (Zapus t.)	327	262
montereyensis. (Sorex)	452	.....	373
monteriensis. (Arctocephalus)	437	.....	357
montezumæ. (Neotoma).....	218	.....	.....
monticola. (Bassaris).....	398	487	.....
monticola. (Perognathus).....	306, 307	.....	248
monticola. (Sorex v.)	448	.....	371
monticola. (Thomomys)	275	.....	225
monticolus. (Sorex).....	448	.....	371
monticolus. (Thomomys)	275	.....	.....
montipinoris. (Peromyscus).....	157	.....	.....
montserratense. (Stenoderma).....	526	705	.....
moorii. (Delphinus).....	30	55	28
mordax. (Arvicola)	244	.....	191
mordax. (Microtus)	244	.....	191
morio. (Macroxus).....	68	116	.....
Mormoops	506	646	.....
Mormoops blainvillii	506	646, 649	.....
Mormoops m. senicula	507	648	.....
Mormopinæ	503	639	.....
Mormops	506	646	418
Mormops blainvillii	507	649	419
Mormops b. cinnamomea	507	649	.....
Mormops megalophylla	506	648	418
Mormops m. senicula	507	648	.....
morosus. (Microtus).....	250	.....	200
mortivallis. (Dipodomys m.)	290	.....	.....
morulus. (Sciurus v.)	62	105	.....
Morunga	440	545	359
moschatus. (Bos).....	55	.....	.....
moschatus. (Delphinus)	31	55	28
moschatus. (Ovibos)	55	.....	48
Moschomys	189, 252	250	.....
Moschophoromys	189	250	.....
Moschophoromys desmaresti	190	250, 251	.....
Moschophoromys luciaë	190	251
mulleri. (Phoca).....	444	364
mundus. (Putorius x.).....	431	350
mungo. (Herpestes).....	374	462
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muricus. (Putorius).....	427	*434
Muridæ.....	129	162	117
murina. (Didelphis).....	2	5
murina. (Marmosa)	2	5
Murinaë.....	129	162	117

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	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
murinus. (Desmodus)	530	719	.....
murinus. (Didelphys)	2	.....	.....
murinus. (Grymæomys)	2	.....	.....
murinus. (Vespertilio)	473	570	400
Mus.	119, 129	162	104, 117
Mus a. americanus	140	.....	124
Mus alexandrinus	129	164	118
Mus alpinus	119	.....	.....
Mus anomalus	316	368	.....
Mus arvalis	233	298	178
Mus bursarius	262	.....	217
Mus californicus	137	203	137
Mus cinerea	220	.....	.....
Mus citellus	96	139	81
Mus decumanus	129	164	117
Mus desmaresti	189, 190	250	.....
Mus empetra	120	.....	.....
Mus floridana	205, 209	276	154, 157
Mus groenlandicus .....	.....	.....	209
Mus hudsonius	260	.....	209
Mus leontii	191	256	.....
Mus lemmus	258	.....	206
Mus michiganensis	160	.....	140
Mus missouriensis	130	.....	119
Mus monax	119	.....	.....
Mus musculus	130	162	118
Mus m. jalapæ	130	163	.....
Mus norvegicus	129	164	†428
Mus paca	337	408	.....
Mus palustris	180	233	146
Mus pennsylvanica	234	.....	179
Mus pilorides	190	250	.....
Mus rattus	129	163	117
Mus rutilus	229	.....	170
Mus saccatus	262	.....	217
Mus s. noveboracensis	135, 141	70	125
Mus tectorum	129	164	118
Mus tuza	261	.....	215
Mus volans	125	158	109
musculoides. (Peromyscus)	161	.....	.....
musculoides. (Peromyscus a.)	161	180	.....
musculus. (Balæna)	20	.....	13
musculus. (Balænoptera)	20	.....	13
musculus. (Didelphys)	2	.....	.....
Musculus leucopus	140	.....	.....
musculus. (Mus)	130	162	118
musculus. (Nyctinomus)	500	639
musculus. (Peromyscus)	135, 136	175
musculus. (Sitomys)	135	175

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<i>Mustela</i>	419	333
<i>Mustela affinis</i>	433
<i>Mustela americana</i>	419	334
<i>Mustela a. abieticola</i>	419
<i>Mustela a. abietinoides</i>	420	.....	.....
<i>Mustela a. actiosa</i>	420, 421	.....	.....
<i>Mustela a. brumalis</i>	420	.....	.....
<i>Mustela a. kenaiensis</i>	421	.....	.....
<i>Mustela americanus</i>	419	.....	.....
<i>Mustela atrata</i>	422	.....	335
<i>Mustela a. actiosa</i>	420	.....	336
<i>Mustela a. brumalis</i>	420	.....	336
<i>Mustela a. caurina</i>	422	.....	335
<i>Mustela barbara</i>	418	.....	.....
<i>Mustela boria</i>	421	.....	.....
<i>Mustela brumalis</i>	420	.....	336
<i>Mustela canadensis</i>	422, 423	.....	338
<i>Mustela c. pacifica</i>	423	.....	.....
<i>Mustela caurina</i>	422	.....	335
<i>Mustela c. actiosa</i>.....	.....	.....	*510
<i>Mustela c. atrata</i>.....	.....	.....	*510
<i>Mustela c. brumalis</i>.....	.....	.....	*510
<i>Mustela c. origenes</i>	422	.....	335
<i>Mustela cicognanii</i>	426	.....	344
<i>Mustela erminea</i>	430	.....	.....
<i>Mustela frenata</i>	431	.....	350
<i>Mustela godmani</i>	422	.....	335
<i>Mustela guianensis</i>	1	3	.....
<i>Mustela gulo</i>	416	.....	.....
<i>Mustela huro</i>	419	335	.....
<i>Mustela kenaiensis</i>	421	.....	.....
<i>Mustela leucopus</i>	419	335	.....
<i>Mustela longicauda</i>	430	.....	348
<i>Mustela lutra</i>	433	535	352
<i>Mustela l. canadensis</i>	433	.....	.....
<i>Mustela lutrecephala</i>	423	.....	.....
<i>Mustela lutreola</i>	423	.....	.....
<i>Mustela lutris</i>	435	537	354
<i>Mustela martes</i>	419	.....	334
<i>Mustela melanorhyncha</i>	422	.....	335
<i>Mustela minx</i>	423	.....	.....
<i>Mustela nesophila</i>	420	.....	.....
<i>Mustela nigra</i>	422	.....	335
<i>Mustela paraguensis</i>	1	3	.....
<i>Mustela pennanti</i>	422	.....	337
<i>Mustela p. pacifica</i>	423	.....	337
<i>Mustela putorius</i>	423	529
<i>Mustela richardsonii</i>	426	344
<i>Mustela vison</i>	423

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<i>Mustela vulgaris</i>	426	344
<i>Mustela vulpina</i>	419	334
<i>Mustela winingus</i>	423
<i>Mustela xanthogenys</i>	431	349
<i>Mustela zibellina</i>	419	335	.....
<i>Mustelidæ</i>	404	502	319
<i>Mustelinæ</i>	416	.....	.....
<i>mustelinus</i> . (<i>Sciurus</i>).....	68	115	.....
<i>muswa</i> . (<i>Alces</i>).....	41	.....	38
<i>mutabilis</i> . (<i>Sorex s.</i>).....	456	553	.....
<i>mutica</i> . (<i>Glossophaga</i>).....	516	671	.....
<i>mutica</i> . (<i>Vulpes</i>).....	385	.....	.....
<i>muticus</i> . (<i>Vulpes</i>).....	385	.....	.....
<i>Mycetes</i>	532	726	.....
<i>Mycetes palliatus</i>	533	726	.....
<i>Mycetes villosus</i>	532	726	.....
<i>Mynomes</i>	233	298	178
<i>Mynomes pratensis</i>	234	.....	179
<i>Myodes</i>	258	.....	206
<i>Myodes albigularis</i>	259	.....	207
<i>Myodes nigripes</i>	260	.....	209
<i>myodes</i> . (<i>Peromyscus l.</i>).....	140	.....	125
<i>Myogalinæ</i>	466	.....	386
<i>myoides</i> . (<i>Cricetus</i>).....	140	.....	125
<i>myoides</i> . (<i>Hesperomys</i>).....	144	.....	128
<i>Myolemmus</i>	260	.....	209
<i>Myoprocta</i>	335	403	.....
<i>myops</i> . (<i>Erethizon e.</i>).....	333	.....	266
<i>myops</i> . (<i>Sorex t.</i>).....	453	.....	.....
<i>myops</i> . (<i>Thomomys</i>).....	276	.....	.....
<i>myosura</i> . (<i>Myrmecophaga</i>).....	10	27	.....
<i>myosurus</i> . (<i>Didelphis</i>).....	4	.....	.....
<i>Myotis</i>	473	570	400
<i>Myotis californicus</i>	476	578	403
<i>Myotis c. caurinus</i>	477	.....	404
<i>Myotis c. ciliolabrum</i>	477	.....	404
<i>Myotis c. durangæ</i>	478	579	.....
<i>Myotis c. jaliscensis</i>	477	579	.....
<i>Myotis c. mexicanus</i>	477	579	.....
<i>Myotis c. pallidus</i>	477	579	405
<i>Myotis chiriquensis</i>	475	576	.....
<i>Myotis dominicensis</i>	475	576	.....
<i>Myotis evotis</i>	474	574	.....
<i>Myotis e. thysanode</i>	479	.....	.....
<i>Myotis incautus</i>	473	.....	.....
<i>Myotis lucifugus</i>	478	580	402
<i>Myotis l. alascensis</i>	479	.....	402
<i>Myotis l. longicrus</i>	479	581	402
<i>Myotis milleri</i>	474	575
<i>Myotis nigricans</i>	475	575

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Myotis subulatus.....	478	580	405
Myotis s. keenii.....	478	405
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Myotis velifer.....	473	573	401
Myotis vivesi.....	474	574
Myotis yumanensis.....	475	576	403
Myotis y. saturatus.....	475	577	403
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Myrmecolichnus.....	10	25
Myrmecophaga.....	12	29
Myrmecophaga crispus.....	10	27
Myrmecophaga didactyla.....	10	24
Myrmecophaga jubata.....	12	29
Myrmecophaga myosura.....	10	27
Myrmecophaga quadridactyla.....	10
Myrmecophaga sellata.....	11	28
Myrmecophaga tetradactyla.....	10	26, 27
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Myrmecophagidæ.....	10	24
Myrmydon.....	10	25
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nana. (Brachyphylla).....	522	690
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Nannugo.....	480	581	408
nanus. (Arvicola).....	239	184
nanus. (Lepus).....	360	273
nanus. (Microtus).....	239	184
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nanus. (Tagassu).....	35	62
nanus. (Tayassu).....	35	62
Napæozapus.....	324, 328	257, 263
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Narwalus vulgaris.....	24	19
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nasicus. (Thomomys).....	276	226
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<i>Nasua n. panamensis</i>	403
<i>Nasua n. yucatanica</i>	403
<i>Nasua nasica</i>	402	497
<i>Nasua n. bullata</i>	403	497
<i>Nasua n. molaris</i>	402, 403	497	.....
<i>Nasua n. pallida</i>	403	498	.....
<i>Nasua n. panamensis</i>	403	498	.....
<i>Nasua n. yucatanica</i>	403	498	.....
<i>Nasua nelsoni</i>	402	495	.....
<i>Nasua thersites</i>.....	.....	486	.....
<i>nasua. (Viverra)</i>	402	494	.....
<i>nasuta. (Arvicola)</i>	235	.....	180
<i>nasutus. (Molossus)</i>	496	.....	.....
<i>nasutus. (Peromyscus t.)</i>	159	.....	139
<i>nasutus. (Promops)</i>	496, 497	621	.....
<i>nasutus. (Vesperimus)</i>	159	.....	139
<i>Natalis</i>	501	631	.....
<i>Natalis mexicanus</i>	502	.....	.....
<i>Natalis stramineus</i>	501	632	.....
<i>Natalis s. major</i>	501	633	.....
<i>Natalus</i>	501	631	.....
<i>Natalus brevimanus</i>	502	.....	.....
<i>Natalus major</i>	501	633	.....
<i>Natalus mexicanus</i>	502	.....	.....
<i>Natalus micropus</i>	502	635	.....
<i>Natalus stramineus</i>	501	632	.....
<i>natator. (Oryzomys)</i>	181	.....	.....
<i>natator. (Oryzomys p.)</i>	181	.....	147
<i>naurica. (Phoca)</i>	441	.....	362
<i>nautica. (Phoca)</i>	441	.....	362
<i>navigator. (Neosorex)</i>	457, 458	.....	378, 379
<i>navigator. (Neosorex p.)</i>	458	.....	379
<i>navus. (Neotoma)</i>	213	282	.....
<i>navus. (Thomomys l.)</i>	273	.....	.....
<i>nayaritensis. (Sciurus)</i>	63	108	.....
<i>nebrascensis. (Canis)</i>	377	.....	301
<i>nebrascensis. (Hesperomys l.)</i>	146	.....	.....
<i>nebrascensis. (Peromyscus t.)</i>	146	.....	130
<i>nebrascensis. (Reithrodontomys d.)</i>	192	150
<i>nebrascensis. (Rhithrodontomys d.)</i>	192
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<i>necator. (Vulpes)</i>	381	†433
<i>neglecta. (Taxidea a.)</i>	405	321
<i>neglecta. (Taxidea t.)</i>	405
<i>neglectus. (Citellus)</i>	103
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<i>neglectus. (Platygeomys)</i>	268	319
<i>neglectus. (Sciurus l.)</i>	65	†426

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nelsoni. (Spermophilus).....	98	87
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Nelsonia goldmani.....	224	290
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<i>Neosorex hydrodromus</i>	458	379
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<i>Neosorex palustris</i>	457	378
<i>Neosorex p. alaskanus</i>	458	379
<i>Neosorex p. navigator</i>	458	379
<i>Neotoma</i>	205	276	154
<i>Neotoma albigula</i>	217
<i>Neotoma alleni</i>	226	297
<i>Neotoma anthonyi</i>	214	283
<i>Neotoma arenacea</i>	214	283
<i>Neotoma arizonæ</i>	223	165
<i>Neotoma attwateri</i>	210
<i>Neotoma baileyi</i>	210	156
<i>Neotoma bella</i>	218	†429
<i>Neotoma b. felipensis</i>	218	286
<i>Neotoma bryanti</i>	208	280
<i>Neotoma californica</i>	216
<i>Neotoma campestris</i>	218	156
<i>Neotoma c. baileyi</i>	210
<i>Neotoma c. rubida</i>	210	156
<i>Neotoma cinerea</i>	220	163
<i>Neotoma c. columbiana</i>	221	165
<i>Neotoma c. drummondi</i>	221	164
<i>Neotoma c. fusca</i>	222	165
<i>Neotoma c. lepida</i>	216	164
<i>Neotoma c. occidentalis</i>	221	164
<i>Neotoma cinnamomea</i>	223	166
<i>Neotoma cnemophila</i>	207
<i>Neotoma cumulator</i>	205	280	154
<i>Neotoma desertorum</i>	215	161
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<i>Neotoma fulviventer</i>	220	288
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<i>Neotoma grandis</i>	215
<i>Neotoma grangeri</i>	223	165
<i>Neotoma intermedia</i>	216	284	161
<i>Neotoma i. albigula</i>	217	285	162
<i>Neotoma i. angusticeps</i>	217	285	162
<i>Neotoma i. durangæ</i>	217	285	.....
<i>Neotoma i. gilva</i>	217	.....	162
<i>Neotoma i. melanura</i>	217, 218	284	.....
<i>Neotoma isthmica</i>	219	287	.....
<i>Neotoma latifrons</i>	212	282	.....
<i>Neotoma lepida</i>	216	.....	164
<i>Neotoma leucodon</i>	212	281	.....
<i>Neotoma l. zacatecæ</i>	212	.....	.....
<i>Neotoma macrotis</i>	206	.....	.....
<i>Neotoma m. simplex</i>	206	.....	.....
<i>Neotoma martinensis</i>	214	.....	.....
<i>Neotoma mexicana</i>	213	282	158
<i>Neotoma m. bullata</i>	213	.....	158
<i>Neotoma m. madrensis</i>	213	.....	.....
<i>Neotoma micropus</i>	208	281	155
<i>Neotoma m. canescens</i>	208
<i>Neotoma m. littoralis</i>	209
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<i>Neotoma m. surberi</i>	209	156
<i>Neotoma mohavensis</i>	207
<i>Neotoma monochroura</i>	206	278
<i>Neotoma montezumæ</i>	218	.....	.....
<i>Neotoma navus</i>	213	282	.....
<i>Neotoma nelsoni</i>	212	.....	.....
<i>Neotoma nudicauda</i>	214	.....	.....
<i>Neotoma occidentalis</i>	221	.....	.....
<i>Neotoma o. fusca</i>	222	.....	.....
<i>Neotoma orizabæ</i>	219	286	.....
<i>Neotoma orolestes</i>	223	.....	166
<i>Neotoma palatina</i>	205	.....	.....
<i>Neotoma parvidens</i>	219	288	.....
<i>Neotoma pennsylvanica</i>	210	.....	157
<i>Neotoma picta</i>	219	287	.....
<i>Neotoma pinetorum</i>	211	.....	158
<i>Neotoma rupicola</i>	223	.....	166
<i>Neotoma saxamans</i>	221	.....	†429
<i>Neotoma sinalœ</i>	213	283	.....
<i>Neotoma splendens</i>	206	278	.....
<i>Neotoma stephensi</i>	216	.....	.....
<i>Neotoma tenuicauda</i>	219	286
<i>Neotoma torquata</i>	208	279
<i>Neotoma tropicalis</i>	220	288

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Neotomodon perotensis.....	225	293
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nerterus. (Rhithrodontomys c.).....	200	267
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nevadensis. (Perognathus).....	305	246
nevadensis. (Sorex).....	449	371
nevadensis. (Thomomys).....	272	223
nevadensis. (Zapus).....	326	261
nicholli. (Stenoderma).....	526	706
Nicon	516	670
Nicon caudifer.....	516	672
nicoyana. (Sciurus).....	76	127
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niger. (Thomomys).....	276
nigra. (Mustela).....	422	335
nigra. (Phoca).....	357
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nigra. (Phyllophora).....	516	672
nigrans. (Microtus p.).....	235	180
nigrescens. (Blarina).....	463	558
nigrescens. (Erethizon e.).....	333
nigrescens. (Heteromys s.).....	317	370
nigrescens. (Peromyscus m.).....	136	176
nigrescens. (Putorius).....	423	338
nigricans. (Molossus).....	496	620
nigricans. (Myotis).....	475	575
nigricans. (Thomomys f.).....	280	335	228
nigricans. (Vespertilio).....	475, 476	575	404
nigricaudatus. (Lepus).....	353	431	288
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nigripes. (Sciurus f.)	78
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niphæcus. (Ovibos m.)	56
nitellinus. (Nyctomys)	173	216
nitidus. (Vespertilio)	476	578	403
nitratoides. (Dipodomys m.)	288	.....	233
nitratius. (Dipodomys m.)	288	.....	233
nivalis. (Ischnoglossa)	519	679	.....
nivalis. (Leptonycteris)	519	679	.....
nivarius. (Eutamias)	233	.....	177
nivea. (Procyon)	400	.....	.....
niveiventris. (Hesperomys)	138	.....	141
niveiventris. (Peromyscus)	138	.....	141
Noctifelis	365	443	.....
Noctilio	494	617	.....
Noctilio dorsatus	494	617	.....
Noctilio leporinus	494	617	.....
Noctilio l. mastivus	494	617	.....
Noctilionidæ	492	608	421
Noctilioninæ	494	617	.....
noctivagans. (Lasionycteris)	480	.....	407
noctivagans. (Vespertilio)	479, 480	.....	407
Noctula	482	585	410
nodosa. (Balæna)	17	.....	10
nodosa. (Megaptera)	17	10
normalis. (Clymene)	34	32
norvegicus. (Mus)	129	164	†428
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notinus. (Bassariscus s.)	399	485
Notiosorex	459	554	385
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Notiosorex c. evotis	460	555
Notiosorex gigas	460	555
notius. (Putorius n.)	429	346
Notophorus	35	62	.....
novæ-hispaniæ. (Hystrix)	335	402	.....
novæ-zelandiæ. (Clymenia)	34	59	30
novæ-zelandiæ. (Delphinus)	30	55	28
noveboracensis. (Lemmus)	234	.....	179
noveboracensis. (Mus s.)	135, 141	170	125
noveboracensis. (Peromyscus a.)	140	.....	125
noveboracensis. (Peromyscus l.)	140	.....	.....
noveboracensis. (Putorius)	429	346
noveboracensis. (Vespertilio)	485	592	411
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nubilus. (Canis).....	376	300
nubiterræ. (Peromyscus c.).....	145	129
nuchalis. (Sciurus c.).....	73	122
nudicauda. (Neotoma).....	214
nudicaudata. (Didelphys).....	4	11
nudicaudatus. (Metachirus).....	4, 5	12
nudicaudus. (Hesperomys).....	173	217
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nudipes. (Peromyscus).....	165	198
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nuttalli. (Lepus).....	348	425	284
nuttalli. (Peromyscus).....	160	140
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Nycticea cynocephala.....	500	417
Nycticeius.....	488	597
Nycticeius humeralis.....	488	598
Nycticeius h. cubanus.....	488	599
Nycticejus.....	415
Nycticejus humeralis.....	488	598	415
Nycticeyx.....	415
Nyctiellus.....	502	634
Nyctiellus lepidus.....	502	634
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Nyctinomops depressus.....	499	627
Nyctinomops femorosaccus.....	498	626
Nyctinomops gracilis.....	498	626
Nyctinomops macrotis.....	499	627
Nyctinomops yucatanicus.....	498	626
Nyctinomus.....	499	628	416
Nyctinomus ægyptiacus.....	499	628
Nyctinomus antillarum.....	499	629
Nyctinomus bahamensis.....	500	630
Nyctinomus brasiliensis.....	500, 501	649	417
Nyctinomus b. californicus.....	500
Nyctinomus cynocephalus.....	500
Nyctinomus depressus.....	499	627
Nyctinomus femorosaccus.....	498	626	417
Nyctinomus macrotis.....	499	627
Nyctinomus m. nevadensis.....	499	627	417
Nyctinomus mexicanus.....	500	629	417
Nyctinomus minutus.....	500	630
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Nyctomys nitellinus.....	173	216
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obscura. (Blarina).....	464	559
obscurum. (Phyllostoma).....	524	695
obscurus. (Evotomys).....	232	176
obscurus. (Fiber).....	254	214
obscurus. (Heteromys).....	319	379
obscurus. (Lichonycteris).....	520	683
obscurus. (Liomys).....	319	379
obscurus. (Molossus).....	495, 496	620
obscurus. (Molossus r.).....	495	620
obscurus. (Myotis s.).....	409
obscurus. (Perodipus).....	299	351
obscurus. (Perognathus).....	311, 313	253
obscurus. (Pipistrellus s.).....	481	409
obscurus. (Reithrodontomys m.).....	194	261
obscurus. (Rhithrodontomys m.).....	194	261
obscurus. (Sorex).....	449	371
obscurus. (Tamias).....	88	136
obscurus. (Vespertilio).....	476	578	403
obsidianus. (Citellus s.).....	100
obsidianus. (Spermophilus s.).....	100	97
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obsoletus. (Spermophilus).....	99	95
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occidentalis. (Neotoma c.).....	221	164
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ochrogenys. (<i>Tamias</i> t.).....	87	71
ochrognathus. (<i>Sigmodon</i>).....	179	230
ochropus. (<i>Canis</i>).....	379	469	303
ochrus. (<i>Perognathus</i> c.).....	315
ocius. (<i>Thomomys</i> c.).....	284
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Odocoileus americanus.....	43, 44	39
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Odocoileus a. couesi.....	45	70	40
Odocoileus a. macroirus	44	39
Odocoileus a. osceola	44	40
Odocoileus a. texensis	45	70	40
Odocoileus battyi	45	71
Odocoileus cerrosensis	47	76
Odocoileus clavatus	46	73
Odocoileus columbianus	48	41
Odocoileus c. scaphiotus	48	42
Odocoileus c. sitkensis.....	48	42
Odocoileus costaricensis.....	46	73
Odocoileus crooki	47	41
Odocoileus hemionus	48	76	42
Odocoileus h. californicus	49	77	43
Odocoileus h. canus	50	78
Odocoileus nelsoni	47	75
Odocoileus sinaloæ	47	78

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<i>Odocoileus thomasi</i>	47	75
<i>Odocoileus truei</i>	46	73
<i>Odontobænida</i>	439
<i>Odontobænus</i>	439
<i>Odontobænus obesus</i>	439	.....	.....
<i>Odontobænus rosmarus</i>	439	.....	.....
<i>Odontocælus</i>	43	68	.....
<i>Odontocælus americanus</i>	43	70, 75	.....
<i>Odontocælus a. borealis</i>	43	.....	.....
<i>Odontocælus a. couesi</i>	45	70, 71	.....
<i>Odontocælus a. louisianæ</i>	44	.....	.....
<i>Odontocælus a. macrourus</i>	44	.....	.....
<i>Odontocælus a. osceola</i>	44	.....	.....
<i>Odontocælus a. texensis</i>	45	70	.....
<i>Odontocælus battyi</i>	45	71	.....
<i>Odontocælus cerrosensis</i>	47	76	.....
<i>Odontocælus columbianus</i>	48	.....	.....
<i>Odontocælus c. scaphiotus</i>	48	.....	.....
<i>Odontocælus c. sitkensis</i>	48	.....	.....
<i>Odontocælus costaricensis</i>	46	73	.....
<i>Odontocælus crooki</i>	47	.....	.....
<i>Odontocælus hemionus</i>	48, 49	76, 77, 78	.....
<i>Odontocælus h. californicus</i>	49	76, 77, 78	.....
<i>Odontocælus h. canus</i>	50	78	.....
<i>Odontocælus h. eremicus</i>	49, 50	77	.....
<i>Odontocælus h. peninsulæ</i>	50	78	.....
<i>Odontocælus h. virgultus</i>	49	.....	.....
<i>Odontocælus lichtensteini</i>	45	72	.....
<i>Odontocælus nelsoni</i>	47	75	.....
<i>Odontocælus nemoralis</i>	46	73, 74	.....
<i>Odontocælus rothschildi</i>	46	72	.....
<i>Odontocælus sinaloæ</i>	47	78	.....
<i>Odontocælus thomasi</i>	47	75
<i>Odontocælus toltecus</i>	46	74
<i>Odontocælus truii</i>	46	73, 74
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<i>Ædipomidas geoffroyi</i>	532
<i>Ædipus</i>	532
<i>ædipus</i> . (Hapale)	532	724
<i>ædipus</i> . (Simia)	532
<i>ærstedii</i> . (Saimiri)	534	731	.....
<i>Ogotoma</i>	337	.....	266
<i>olida</i> . (Mephitis)	406	.....	.....
<i>Olidosus</i>	36	65	.....
<i>Oligoryzomys</i>	180, 189	233, 248	.....
<i>olivaceo-fuscus</i> . (Dysopes)	495	620	.....
<i>olivaceus</i> . (Citellus t.)	104
<i>olivaceus</i> . (Perognathus)	307	249
<i>olivaceus</i> . (Perognathus m.)	307	249

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olivaceus. (Spermophilus t.)	104		100
olympica. (Haplodontia)	127		114
olympica. (Spilogale)	415		332
olympicus. (Phenacomys)	227		168
olympicus. (Sciuropterus a.)	123		
olympicus. (Sciuropterus v.)	123		110
olympus. (Arctomys)	121		107
olympus. (Felis h.)	369	454	294
olympus. (Marmota)	121		
onca. (Felis)	365		
Oncifelis	365	443	
onchilla. (Felis p.)	367	450	
Ondatra	252		211
oneida. (Arvicola)	235		180
Onychomys	130	165	119
Onychomys arcticeps	132		121
Onychomys fuliginosus	134		123
Onychomys leucogaster	130		119
Onychomys l. albescens	131	†742	
Onychomys l. brevicaudus	130		120
Onychomys l. longipes	131		120
Onychomys l. melanophrys	131		120
Onychomys l. pallescens	131		121
Onychomys longicaudus	132		121
Onychomys l. tularensis	132		
Onychomys longipes	131		120
Onychomys macrotis	134	169	
Onychomys melanophrys	131, 132	166	
Onychomys m. pallescens	131	166	
Onychomys pulcher	134		
Onychomys ramona	132	167	121
Onychomys ruidosæ	131		
Onychomys torridus	133	167	122
Onychomys t. arenicola	133	168	122
Onychomys t. canus	133	†742	
Onychomys t. perpallidus	133	168	122
Onychomys t. tularensis	132		
Onychomys t. yakiensis	133	†742	
operarius. (Arvicola)	241		187
operarius. (Eutamias a.)	†541		
operarius. (Microtus)	241		187
operarius. (Tamias a.)	†541		
operarius. (Thomomys)	273		223
Oplacerus	43	68	
oporaphilum. (Phyllostoma)	529	715	
opossum. (Metachirus)		12	
oramontis. (Phenacomys)	226		168
orarius. (Scapanus)	468		392
orarius. (Sciurus)			65

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orbitalis. (Liomys).....	320	380
Orca	50	22
Orca arcticus.....	26	51	22
Orca ater	26
Orca atra	22
Orca destructor.....	27	51	23
Orca europæus	26	51	22
Orca latirostris	26	51	22
Orca meridionalis	27	51	23
Orca rectipinna.....	26	.....	22
Orca schlegelii.....	26	51	22
Orca stenorhyncha.....	26	51	22
orca. (Delphinus).....	26	50, 51	.....
orca. (Evotomys).....	230	.....	172
orca. (Orcinus).....	26	51	.....
Orcinus.....	26	50	21
Orcinus gladiator	26	51	22
Orcinus orca.....	26	51	.....
Orcinus rectipinna	26	.....	22
ordi. (Perodipus).....	296	350	238
ordii. (Dipodomys)	296	.....	.....
Oreamnos.....	52	.....	44
Oreamnos m. columbianus.....	52	.....	.....
Oreamnos m. missoulæ	52	.....	.....
Oreamnus	52	.....	44
Oreamnus kennedyi.....	53	.....	44
Oreamnus montanus	52	.....	44
Oreamnus m. columbianus	52	.....	.....
Oreamnus m. missoulæ	52	.....	.....
oreas. (Peromyscus).....	152	.....	134
oregonensis. (Felis c.).....	369	454	294
oregonensis. (Felix).....	369	.....	.....
oregonensis. (Geomys)	262	.....	217
oregonensis. (Pteromys)	122	.....	110
oregonensis. (Putorius x.).....	431	.....	350
oregonensis. (Sciuropterus a.)	122	.....	.....
oregonensis. (Sciuropterus v.).....	122	.....	110
oregonensis. (Vespertilio)	476	578	403
oregoni. (Arvicola).....	250	.....	200
oregoni. (Microtus)	250	.....	200
oregonus. (Bassariscus a.)	398	.....	317
oregonus. (Bassariscus f.)	398	.....	.....
oregonus. (Citellus)	113	.....	.....
oregonus. (Microdipodops m.)	299	.....	.....
oregonus. (Spermophilus).....	113	.....	94
oregonus. (Thomomys d.).....	277
oregonus. (Zapus p.)	326	260
oreocetes. (Cratogeomys)	265	314

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oreocetes. (Eutamias)	95
oreocetes. (Tamias)	95	80
oreolestes. (Teonoma)	223
oreophila. (Blarina)	464	559
oreophilus. (Phenacomys)	226	.....	168
oreopolus. (Sorex)	451	550	.....
oresterus. (Peromyscus)	139	200	.....
oribasus. (Putorius l.)	430	.....	348
orientalis. (Pusa)	436	537	354
origenes. (Mustela c.)	422	.....	.....
orinomus. (Myotis)	476	577	.....
orinus. (Sorex)	456	553	.....
orizabæ. (Lepus)	351	425	.....
orizabæ. (Neotoma)	219	286	.....
orizabæ. (Neotomodon)	225	294	.....
orizabæ. (Peromyscus m.)	169	207	.....
orizabæ. (Reithrodontomys)	200	266	.....
orizabæ. (Rhithrodontomys)	200	266	.....
orizabæ. (Sorex)	449	550	.....
orizabæ. (Thomomys)	282	337	.....
ornatus. (Ateles)	535	733	.....
ornatus. (Dipodomys)	291	344	.....
ornatus. (Sorex)	452	.....	374
orolestes. (Neotoma)	223	.....	166
orophila. (Blarina)	464	559	.....
Orthogeomys	268	322	.....
Orthogeomys grandis	268, 269	322	.....
Orthogeomys latifrons	269	324	.....
Orthogeomys nelsoni	269	324	.....
Orthogeomys scalops	269	324	.....
orthotis. (Nyctinomys)	497	623	.....
orthotis. (Promops)	497	623	.....
Orthriomys	234, 251	304	179
Oryctogale	410	512	.....
Oryctomys	272	332	221
Oryctomys bottæ	274	.....	223
Oryx	24	.....	18
oryzivora. (Arvicola)	180	.....	147
Oryzomys	180	232, 233	146
Oryzomys albiventer	182	236	.....
Oryzomys alfari	183	242	.....
Oryzomys angusticeps	187	245	.....
Oryzomys antillarum	188	247	.....
Oryzomys aquaticus	181	241	147
Oryzomys a. coloratus	181	.....	148
Oryzomys bulleri	185	239	.....
Oryzomys chapmani	186	237, 238	.....
Oryzomys c. caudatus	186	238
Oryzomys c. dilutior	186	238
Oryzomys c. saturatior	186	239

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<i>Oryzomys chrysomelas</i>	190	253
<i>Oryzomys costaricensis</i>	189	249, 250
<i>Oryzomys couesi</i>	186	236, 239
<i>Oryzomys cozumelæ</i>	182	241	.....
<i>Oryzomys crinitus</i>	183	245	.....
<i>Oryzomys c. aztecus</i>	183	245	.....
<i>Oryzomys devius</i>	188	244	.....
<i>Oryzomys fulgens</i>	183	240	.....
<i>Oryzomys fulvescens</i>	189	248	.....
<i>Oryzomys goldmani</i>	186	246	.....
<i>Oryzomys hylocetes</i>	187	237	.....
<i>Oryzomys jalapæ</i>	184	246, 247	.....
<i>Oryzomys j. apatelius</i>	184	246	.....
<i>Oryzomys j. rufinus</i>	185	247	.....
<i>Oryzomys luciae</i>	190	251	.....
<i>Oryzomys melanotis</i>	187	243, 244	.....
<i>Oryzomys mexicanus</i>	184	235, 242	.....
<i>Oryzomys m. peragrus</i>	184	243	.....
<i>Oryzomys molestus</i>	183	240	.....
<i>Oryzomys natator</i>	181	.....	.....
<i>Oryzomys n. floridanus</i>	181	.....	.....
<i>Oryzomys nelsoni</i>	182	235	.....
<i>Oryzomys palatinus</i>	187	237	.....
<i>Oryzomys palustris</i>	180	242	147
<i>Oryzomys p. coloratus</i>	181	.....	.....
<i>Oryzomys p. natator</i>	181	.....	147
<i>Oryzomys p. texensis</i>	181	.....	147
<i>Oryzomys panamensis</i>	182	241	.....
<i>Oryzomys peninsulæ</i>	182	236	.....
<i>Oryzomys rhabdops</i>	187	237, 246	.....
<i>Oryzomys richmondi</i>	184	248	.....
<i>Oryzomys rostratus</i>	188	243, 244	.....
<i>Oryzomys r. megadon</i>	188	243	.....
<i>Oryzomys rufus</i>	185	239	.....
<i>Oryzomys talamancaæ</i>	183	241	.....
<i>Oryzomys teapensis</i>	185	247	.....
<i>Oryzomys tectus</i>	188	244	.....
<i>Oryzomys vegetus</i>	189	249	.....
<i>Oryzomys victus</i>	188	244	.....
<i>Oryzomys yucatanensis</i>	189	236	.....
<i>Oryzomys zygomatus</i>	185	241	.....
<i>osborni</i> . (<i>Rangifer</i>).....	38	.....	.....
<i>osburnii</i> . (<i>Chilonycteris</i>).....	505	642
<i>osceola</i> . (<i>Cariacus</i>).....	44
<i>osceola</i> . (<i>Eptesicus</i> f.).....	483
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osgoodi. (<i>Citellus</i>)	110		
osgoodi. (<i>Spermophilus</i>)	110		91
osoyoosensis. (<i>Fiber</i>)	252		212
osphyia. (<i>Megaptera</i> n.)	17		10
Osteopera.	337	408	
Otaria californiana.	437		356
Otaria gillespii.	437	539	356
Otaria jubata.	437		
Otaria kracheninikowi.			357
Otaria stelleri.	437		
Otariidae.	437	538	355
Otelaphus.	43	68	
othus. (<i>Lepus</i>)	359		272
Otisorex platyrhinus	446		367
Otocolobus.	96	139	82
Otognosis.	300	352	241
Otognosis longimembris.	306		247
Otopterus.	508, 510	651	419
Otopterus bocourtianus.	510	654	
Otopterus bulleri	510	654	
Otopterus californicus	509, 510	653	420
Otopterus mexicanus.	510	653	
Otopterus pygmæus.	511		
Otopterus waterhousii	508	652	
Otopterus w. compressus.	509		
Otopterus w. jamaicensis	508		
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Ototylomys phyllotis.	179	220, 221	
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Ovibos moschatus.	55, 56		48
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Ovis aries.	53	83	
Ovis californianus.	53		46
Ovis canadensis	53		46
Ovis c. auduboni	53		
Ovis c. liardensis.	54		47
Ovis cervina	53	86	46
Ovis c. auduboni	53		
Ovis c. cremnobates.	54	84	

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<i>Ovis c. nelsoni</i>	54	84, 85	46
<i>Ovis dalli</i>	55	47
<i>Ovis d. kenaiensis</i>	55
<i>Ovis fannini</i>	55	†425
<i>Ovis mexicanus</i>	54
<i>Ovis montanus</i>	52	44
<i>Ovis m. dalli</i>	55
<i>Ovis nelsoni</i>	54
<i>Ovis pygargus</i>	53	46
<i>Ovis stonei</i>	54	47
<i>Ovis stonii</i>	54	85
<i>Ozolicis</i>	410	512
<i>Paca</i>	337	408
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<i>pacifica</i> . (<i>Aplodontia</i>).....	127	114
<i>pacifica</i> . (<i>Haplodontia</i>).....	127	114
<i>pacifica</i> . (<i>Lutra c.</i>).....	434	353
<i>pacifica</i> . (<i>Lutra h.</i>).....	434
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<i>pacificus</i> . (<i>Antrozous p.</i>).....	491	607	397
<i>pacificus</i> . (<i>Lepus</i>).....	348	†744
<i>pacificus</i> . (<i>Lepus v.</i>).....	348
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<i>pacificus</i> . (<i>Sorex</i>).....	454	375
<i>pacificus</i> . (<i>Zapus</i>).....	327	262
<i>Pagomys</i>	441	541	361
<i>Pagophilus</i>	441, 444	541	361, 364
<i>palatina</i> . (<i>Neotoma</i>).....	205
<i>palatinus</i> . (<i>Oryzomys</i>).....	187	237
<i>palitans</i> . (<i>Lepus a.</i>).....	353	434
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<i>pallascens</i> . (<i>Corynorhinus m.</i>).....	490	604	399
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<i>pallascens</i> . (<i>Onychomys l.</i>).....	131	121
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<i>pallascens</i> . (<i>Peromyscus m.</i>).....	160	140
<i>pallascens</i> . (<i>Thomomys b.</i>).....	274	224
<i>palliata</i> . (<i>Alouatta</i>).....	533	726
<i>palliatus</i> . (<i>Mycetes</i>).....	533	726
<i>pallida</i> . (<i>Nasua n.</i>).....	403	498
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pallidus. (Canis).....	377	301
pallidus. (Cercolabes).....	334	401
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pallidus. (Fiber z.).....	253	308	213
pallidus. (Metachirus f.).....	5	13
pallidus. (Microdipodops).....	299
pallidus. (Microtus).....	247	195
pallidus. (Myotis c.).....	477	579	405
pallidus. (Perognathus f.).....	314	366
pallidus. (Philander l.).....	4	10
pallidus. (Procyon).....	401
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pallidus. (Reithrodontomys).....	195	262
pallidus. (Reithrodontomys l.).....	195	262	152
pallidus. (Rhithrodontomys l.).....	195	262
pallidus. (Sigmodon h.).....	175	228	145
pallidus. (Spermophilus t.).....	104	100
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pallidus. (Tamias q.).....	85	135	68
pallidus. (Vespertilio).....	491	396
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palmatus. (Alces).....	41	38
palmeri. (Atophyrax b.).....	459	381
palmeri. (Eutamias).....	86
palmeri. (Perodipus o.).....	296	350
palmeri. (Sorex b.).....	459	381
palmeri. (Tamias).....	86	69
Paludicola.....	234	299	178
paludicola. (Lepus).....	341	279
paludicola. (Lepus p.).....	341	279
palustris. (Arvicola).....	234	179
palustris. (Hesperomys).....	180
palustris. (Lepus).....	341	415	279
palustris. (Mus).....	180	233	146
palustris. (Neosorex).....	457	378
palustris. (Oryzomys).....	180	242	147
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panamensis. (Felis).....	368	452
panamensis. (Nasua n.).....	403	498
panamensis. (Neomys).....	174	219
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panamintinus. (<i>Tamias</i>).....	90	74
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paradoxus. (<i>Perognathus</i> h.).....	310	252
paradoxus. (<i>Solenodon</i>).....	472	568
paraguensis. (<i>Mustela</i>).....	1	3
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parvidens. (<i>Urocyon</i> c.).....	389	476
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peninsulæ. (Perognathus s.).....	316	363
peninsulæ. (Putorius).....	429	347
peninsulæ. (Rhithrodontomys).....	197	263
peninsulæ. (Tamias l.).....	97	143
peninsulæ. (Vespertilio f.).....	484	589
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pennsylvanica. (Neotoma).....	210	157
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<i>Phoca albigena</i>	441	362
<i>Phoca albi</i>	444	364
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<i>Phoca antarctica</i>	438
<i>Phoca barbata</i>	441	362
<i>Phoca cristata</i>	440	360
<i>Phoca cucullata</i>	440	360
<i>Phoca desmaresti</i>	444	364
<i>Phoca dorsata</i>	444	364
<i>Phoca equestris</i>	442	362
<i>Phoca fasciata</i>	441	362
<i>Phoca foetida</i>	442, 443	363, 364
<i>Phoca frederici</i>	444	364
<i>Phoca groenlandica</i>	444	364
<i>Phoca g. nigra</i>	444	364
<i>Phoca grypus</i>	441	361
<i>Phoca hispida</i>	443	364
<i>Phoca isidorei</i>	440	360
<i>Phoca jubata</i>	437
<i>Phoca lagura</i>	444	364
<i>Phoca largha</i>	442	363
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<i>Phoca leporina</i>	441	362
<i>Phoca leucopha</i>	360
<i>Phoca littorea</i>	442	363
<i>Phoca mitrata</i>	440	360
<i>Phoca monachus</i>	444
<i>Phoca mulleri</i>	444	364
<i>Phoca naurica</i>	441	362
<i>Phoca nautica</i>	441	362
<i>Phoca nigra</i>	357
<i>Phoca oceanica</i>	444	364
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<i>Phoca pealei</i>	442	363
<i>Phoca pilayi</i>	444	364
<i>Phoca proboscidea</i>	439	545
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<i>Phoca scopulicola</i>	442	363
<i>Phoca semilunaris</i>	444	364
<i>Phoca stejnegeri</i>	443
<i>Phoca tropicalis</i>	445	.....	.....
<i>Phoca ursina</i>	438	.....	357
<i>Phoca variegata</i>	442	.....	363
<i>Phoca vitulina</i>	441, 442	541	363
<i>Phocæna</i>	25	48	20
<i>Phocæna brachycium</i>	25	48	20
<i>Phocæna communis</i>	25	48	20
<i>Phocæna compressicauda</i>	31	56	29
<i>Phocæna crassidens</i>	27	51	23
<i>Phocæna dalli</i>	25	.....	21
<i>Phocæna lineata</i>	25	48	20
<i>Phocæna phocæna</i>	25	48	.....
<i>Phocæna vomerina</i>	25	48	20
<i>phocæna. (Delphinus)</i>	25	48	20
<i>phocæna. (Phocæna)</i>	25	48
<i>Phocidæ</i>	439	541	359
<i>Phocinæ</i>	440	361
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<i>Phylloia parnellii</i>	505	642
<i>Phyllonycteris</i>	520	684
<i>Phyllonycteris bombifrons</i>	520	685
<i>Phyllonycteris planifrons</i>	520	685	.....
<i>Phyllonycteris poeyi</i>	520, 521	686	.....
<i>Phyllonycteris sezekorni</i>	521	686	.....
<i>Phyllophora</i>	516	670	.....
<i>Phyllophora megalotis</i>	512, 513	660, 662	.....
<i>Phyllophora nigra</i>	516	672	.....
<i>Phyllops</i>	527	707	.....
<i>Phyllops falcatum</i>	527	708	.....
<i>Phyllops falcatus</i>	527	707	.....
<i>Phyllostoma</i>	514	666	.....
<i>Phyllostoma albescens</i>	529	715	.....
<i>Phyllostoma albomaculatum</i>	527	708	.....
<i>Phyllostoma amblyotis</i>	512	659	.....
<i>Phyllostoma bicolor</i>	515	669	.....
<i>Phyllostoma bilabiatum</i>	528	712	.....
<i>Phyllostoma brachyotum</i>	515	669	.....
<i>Phyllostoma brevicaudum</i>	515	668	.....
<i>Phyllostoma calcaratum</i>	515	669	.....
<i>Phyllostoma chrysocomus</i>	529	715
<i>Phyllostoma elongata</i>	513	662
<i>Phyllostoma erythromos</i>	529	715
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<i>Phyllostoma hastatum</i>	514	666
<i>Phyllostoma h. panamensis</i>	514
<i>Phyllostoma lanceolatum</i>	515	669
<i>Phyllostoma lilium</i>	529	715
<i>Phyllostoma lineatum</i>	525	702
<i>Phyllostoma obscurum</i>	524	695
<i>Phyllostoma oporaphilum</i>	529	715
<i>Phyllostoma perspicillatum</i>	524	695
<i>Phyllostoma planirostre</i>	524
<i>Phyllostoma rotundum</i>	530
<i>Phyllostoma scrobiculatum</i>	513	662
<i>Phyllostoma spiculatus</i>	529	715
<i>Phyllostomatidæ</i>	503	639	418
<i>Phyllostomatinae</i>	507	649	419
<i>Phyllostomus</i>	514	666
<i>Phyllostomus h. panamensis</i>	514
<i>Phyllostomus maximus</i>	514	666
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<i>Physalus duguidii</i>	19	13
<i>Physalus sibbaldii</i>	20	13
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<i>physalus. (Balænoptera)</i>	19	13
<i>Physeter</i>	20	45
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<i>Physeter breviceps</i>	22	46	*479
<i>Physeter macrocephalus</i>	20, 21	45
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<i>Physeterinae</i>	20	14
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<i>picta. (Neotoma)</i>	219	287
<i>pictus. (Heteromys)</i>	322	377
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<i>pilayi. (Phoca)</i>	444	364
<i>pilorides. (Capromys)</i>	330	390
<i>pilorides. (Holochilus)</i>	221
<i>pilorides. (Isodon)</i>	330	390
<i>pilorides. (Mus)</i>	190	250
<i>pilosus. (Hystrix)</i>	333	397	264
<i>pinalis. (Peromyscus r.)</i>	151	189	135
<i>pinalis. (Sitomys r.)</i>	151	189	135
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Poescopia	17	41	10
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poliopus. (<i>Sciurus</i>)	69	117	
poliopus. (<i>Sciurus</i> v.)	69		
polius. (<i>Peromyscus</i>)	153	196	
polonica. (<i>Marmota</i>)	119		
pomeegra. (<i>Delphinus</i>)	30	55	28
popofensis. (<i>Microtus</i> u.)	242		188
portoricensis. (<i>Chilonycteris</i>)	505	643	
portoricensis. (<i>Monophyllus</i>)	518	677	
Potos	404	499	
Potos f. aztecus	404	500	
Potos f. chiriquensis	404	501	
Potos f. megalotus	404		
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Procyon	400	490	317

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<i>Procyon lotor</i>	400	317
<i>Procyon l. elucus</i>	400	319
<i>Procyon l. hernandezi</i>	401	491	317
<i>Procyon l. insularis</i>	401	492
<i>Procyon l. pacificus</i>	401	319
<i>Procyon l. pallidus</i>	401	318
<i>Procyon maynardi</i>	402	490
<i>Procyon nivea</i>	400
<i>Procyon pallidus</i>	401
<i>Procyon psora</i>	400
<i>Procyon p. pacifica</i>	401
<i>Procyon pygmaeus</i>	401	490
<i>Procyonidae</i>	397	482	315
<i>Procyoninae</i>	397	482	315
<i>Prodelphinus</i>	32	57	30
<i>Prodelphinus crotaphiscus</i>	33	31
<i>Prodelphinus euphrosyne</i>	34	58	30
<i>Prodelphinus frenatus</i>	34	32
<i>Prodelphinus longirostris</i>	33	58
<i>Prodelphinus plagiodon</i>	33	58	31
<i>Proechimys</i>	329	385
<i>Proechimys burrus</i>	330	388
<i>Proechimys c. chiriquinus</i>	329	387
<i>Proechimys c. panamensis</i>	329	387
<i>Proechinomys</i>	329	385
<i>Proechinomys burrus</i>	330	388
<i>Proechinomys centralis</i>	329	386
<i>Proechinomys c. chiriquinus</i>	329	387
<i>Proechinomys c. panamensis</i>	329	387
<i>Proechinomys semispinosus</i>	329	386
<i>Promops</i>	496	621	421
<i>Promops abrasus</i>	497	623
<i>Promops californicus</i>	498	421
<i>Promops glaucinus</i>	497	623
<i>Promops nanus</i>	498	624
<i>Promops nasutus</i>	496, 497	621
<i>Promops orthotis</i>	497	623
<i>Promops ursinus</i>	497	621
<i>propinquus. (Peromyscus)</i>	137	185
<i>propinquus. (Peromyscus e.)</i>	137	185
<i>propinquus. (Vespertilio f.)</i>	484	589
<i>propinquus. (Vesperus)</i>	484
<i>proteus. (Evotomys)</i>	233	177
<i>pruinosa. (Marmota)</i>	120
<i>pruinosis. (Arctomys)</i>	120	106
<i>pruinosis. (Vespertilio)</i>	487	595	413
<i>Psammomys</i>	233	298	178
<i>Psammomys pinetorum</i>	249	198

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<i>Pseudorca</i>	26	51	22
<i>Pseudorca crassidens</i>	27	51	23
<i>Pseudostoma</i>	261	310	215
<i>Pseudostoma castanops</i>	266	315	
<i>Pseudostoma floridana</i>	261		215
<i>Pseudostoma umbrinus</i>	272	334	
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<i>Pteromyinæ</i>	121	157	107
<i>Pteromys alpinus</i>	121		109
<i>Pteromys oregonensis</i>	122		110
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<i>Pteronotus</i>	506	644	
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<i>Putorius alleghanensis</i>	428		*511
<i>Putorius alleghenensis</i>	428		*511
<i>Putorius alleni</i>	431		349
<i>Putorius arcticus</i>	428		345
<i>Putorius a. kadiacensis</i>	428		346
<i>Putorius arizonensis</i>	431		349
<i>Putorius cicognani</i>	426		344
<i>Putorius c. alascensis</i>	426		344
<i>Putorius c. richardsoni</i>	426, 427		344
<i>Putorius frenatus</i>	431, 432	532	350
<i>Putorius f. goldmani</i>	432	534	
<i>Putorius f. leucoparia</i>	432	535	
<i>Putorius f. neomexicanus</i>	432	534	351
<i>Putorius haidarum</i>	429		351
<i>Putorius longicaudus</i>	430		348
<i>Putorius l. oribasus</i>	430		348
<i>Putorius l. spadix</i>	430		
<i>Putorius lutensis</i>	425		340
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<i>Putorius nigrescens</i>	423	338
<i>Putorius nigripes</i>	425	341
<i>Putorius noveboracensis</i>	429	346
<i>Putorius n. notius</i>	429	.....	346
<i>Putorius n. occisor</i>	429	.....	347
<i>Putorius occisor</i>	429	.....	347
<i>Putorius peninsulæ</i>	429	.....	347
<i>Putorius r. alascensis</i>	426	.....	.....
<i>Putorius rixosus</i>	428	.....	345
<i>Putorius r. eskimo</i>	428	.....	345
<i>Putorius saturatus</i>	430	.....	348
<i>Putorius spadix</i>	430	.....	348
<i>Putorius streator</i>	427	.....	345
<i>Putorius s. leptus</i>	427	.....	.....
<i>Putorius tropicalis</i>	432	531
<i>Putorius t. perdis</i>	433	531
<i>Putorius vison</i>	423	338
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<i>Putorius v. lacustris</i>	424
<i>Putorius v. lutrecephalus</i>	423	339
<i>Putorius v. melampeplus</i>	425
<i>Putorius v. vulgivagus</i>	424	.....	340
<i>Putorius vulgivagus</i>	424	.....	.....
<i>Putorius washingtoni</i>	429	.....	347
<i>Putorius xanthogenys</i>	431	.....	349
<i>Putorius x. mundus</i>	341	.....	350
<i>Putorius x. oregonensis</i>	431	.....	350
<i>putorius. (Mustela)</i>	423	529	.....
<i>putorius. (Spilogale)</i> .....	.....	.....	327
<i>pygargus. (Ovis)</i>	53	.....	46
<i>pygmæa. (Spilogale)</i>	415	519	.....
<i>pygmæus. (Macrotus)</i>	511	.....	.....
<i>pygmæus. (Otopterus)</i>	511	.....	.....
<i>pygmæus. (Procyon)</i>	401	490	.....
<i>pygmæus. (Thomomys)</i>	284	.....	.....
<i>Pygoderma</i>	528	712	.....
<i>Pygoderma bilabiatum</i>	528	712	.....
<i>pyladei. (Sciurus)</i>	77	129	.....
<i>pyrrotrichus. (Cynomys)</i>	117	.....	.....
<i>quadratus. (Thomomys)</i>	276	225
<i>quadridactyla. (Myrmecophaga)</i>	10
<i>quadridens. (Chilonycteris)</i>	504	641
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quercinus. (Sciurus w.)	70	118
quica. (Didelphys)	5	12
radiata. (Talpa)	467	395
rainieri. (Aplodontia m.)	127	112
rainieri. (Haplodontia r.)	127	112
ramona. (Onychomys)	132	167	121
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Rangifer arcticus	40	37
Rangifer caribou	37	35
Rangifer dawsoni	40	36
Rangifer granti	39
Rangifer groenlandicus	39	37
Rangifer lapponicus	37
Rangifer montanus	38	36
Rangifer osborni	38
Rangifer pearyi	40
Rangifer stonei	39
Rangifer stonii	39
Rangifer terrænovæ	38	36
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rattus. (Mus)	120	163	117
ravus. (Microtus c.)	247	193
rectipinna. (Orca)	26	22
rectipinna. (Orcinus)	26	22
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Reduncina	43	68
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Reithrodon longicauda	195	261
Reithrodon megalotis	193	259	151
Reithrodon mexicanus	197	264
Reithrodon montanus	193
Reithrodon sumichrasti	197	264
Reithrodontomys	191	256	148
Reithrodontomys albescens	192
Reithrodontomys arizonensis	196	153
Reithrodontomys a. aurantius	198	153
Reithrodontomys a. intermedius	198	153
Reithrodontomys australis	194
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<i>Reithrodontomys c. tolucae</i>	199	266
<i>Reithrodontomys chrysotis</i>	195	152
<i>Reithrodontomys colimæ</i>	200	266
<i>Reithrodontomys c. nerterus</i>	200	267
<i>Reithrodontomys costaricensis</i>	200	267
<i>Reithrodontomys c. jalapæ</i>	200	267
<i>Reithrodontomys creper</i>	204	272
<i>Reithrodontomys difficilis</i>	197	263
<i>Reithrodontomys dorsalis</i>	203	272
<i>Reithrodontomys dychei</i>	192	150
<i>Reithrodontomys d. nebrascensis</i>	192	150
<i>Reithrodontomys goldmani</i>	201	268
<i>Reithrodontomys griseoflavus</i>	202	270
<i>Reithrodontomys g. helvolus</i>	202	270
<i>Reithrodontomys hirsutus</i>	202	269
<i>Reithrodontomys h. dickinsoni</i>	192
<i>Reithrodontomys klamathensis</i>	196	152
<i>Reithrodontomys laceyi</i>	199	153
<i>Reithrodontomys lecontei</i>	191	148
<i>Reithrodontomys l. dickinsoni</i>	192	150
<i>Reithrodontomys l. impiger</i>	191	149
<i>Reithrodontomys levipes</i>	203	270
<i>Reithrodontomys l. otus</i>	203	271
<i>Reithrodontomys l. toltecus</i>	203	271
<i>Reithrodontomys longicaudus</i>	195, 196	261	151, 153
<i>Reithrodontomys l. pallidus</i>	195	262	152
<i>Reithrodontomys megalotis</i>	193	151
<i>Reithrodontomys m. deserti</i>	193	259	151
<i>Reithrodontomys m. obscurus</i>	194	261
<i>Reithrodontomys m. sestiniensis</i>	193	260
<i>Reithrodontomys m. zacatecæ</i>	194	260
<i>Reithrodontomys merriami</i>	192	150
<i>Reithrodontomys m. aurantius</i>	198
<i>Reithrodontomys m. fulvescens</i>	198	264
<i>Reithrodontomys m. gracilis</i>	198	265
<i>Reithrodontomys m. intermedius</i>	198	264	153
<i>Reithrodontomys microdon</i>	201	269
<i>Reithrodontomys m. albilabris</i>	202	269
<i>Reithrodontomys montanus</i>	193	151
<i>Reithrodontomys orizabæ</i>	200	266
<i>Reithrodontomys pallidus</i>	195	262
<i>Reithrodontomys perotensis</i>	199	266
<i>Reithrodontomys rufescens</i>	201	268
<i>Reithrodontomys saturatus</i>	196
<i>Reithrodontomys s. alticola</i>	197	263
<i>Reithrodontomys s. cinereus</i>	196	262
<i>Reithrodontomys tenuirostris</i>	201	268
<i>Reithrodontomys t. aureus</i>	201	269

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<i>Reithronycteris aphylla</i>	521	688
<i>repens</i> . (<i>Heteromys</i>)	318	372
<i>rhabdops</i> . (<i>Oryzomys</i>)	187	237, 246
<i>Rhachianectes</i>	16	40	9
<i>Rhachianectes glaucus</i>	16, 17	40	9
<i>Rheithrosciurus</i>	59	93	50
<i>Rhinaster</i>	467	394
<i>Rhinodelphis</i>	30	54
<i>rhinodon</i> . (<i>Beluga</i>)	25	19
<i>Rhinolophus ecaudatus</i>	530	718
<i>Rhinophoca</i>	440	545	359
<i>Rhinopoma carolinensis</i>	417
<i>Rhinops minor</i>	515	669
<i>Rhinosciurus</i>	59	93	50
<i>Rhinozolis</i>	410	512
<i>Rhithrodontomys</i>	191	255
<i>Rhithrodontomys albescent</i>	192
<i>Rhithrodontomys arizonensis</i>	196
<i>Rhithrodontomys australis</i>	194	259
<i>Rhithrodontomys a. vulcanius</i>	194	259
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<i>Rhithrodontomys c. tolucae</i>	199	266
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<i>Rhithrodontomys c. nerterus</i>	200	267
<i>Rhithrodontomys costaricensis</i>	200	266, 267
<i>Rhithrodontomys c. jalapae</i>	200	267
<i>Rhithrodontomys creper</i>	204	272
<i>Rhithrodontomys difficilis</i>	197	263
<i>Rhithrodontomys dorsalis</i>	203	272
<i>Rhithrodontomys dychii</i>	192
<i>Rhithrodontomys d. nebrascensis</i>	192
<i>Rhithrodontomys goldmani</i>	201	268
<i>Rhithrodontomys griseiflavus</i>	202	270
<i>Rhithrodontomys g. helvolus</i>	202	270
<i>Rhithrodontomys hirsutus</i>	202	269, 270
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<i>Rhithrodontomys klamathensis</i>	196
<i>Rhithrodontomys laceyi</i>	199
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<i>Rhithrodontomys l. otus</i>	203	271
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<i>Rhithrodontomys m. sestiniensis</i>	193, 194	260
<i>Rhithrodontomys m. zacatecæ</i>	194	260
<i>Rhithrodontomys merriami</i>	192
<i>Rhithrodontomys mexicanus</i>	197	264, 265
<i>Rhithrodontomys m. aurantius</i>	198
<i>Rhithrodontomys m. fulvescens</i>	198	264, 265
<i>Rhithrodontomys m. gracilis</i>	198	265
<i>Rhithrodontomys m. intermedius</i>	198	264
<i>Rhithrodontomys microdon</i>	201, 202	269
<i>Rhithrodontomys m. albilabris</i>	202	269
<i>Rhithrodontomys montanus</i>	193
<i>Rhithrodontomys orizabæ</i>	200	266
<i>Rhithrodontomys peninsulæ</i>	197	263
<i>Rhithrodontomys perotensis</i>	199	266
<i>Rhithrodontomys rufescens</i>	201	268
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<i>Rhithrodontomys s. alticola</i>	197	263
<i>Rhithrodontomys s. cinereus</i>	196	262
<i>Rhithrodontomys tenuirostris</i>	201	268, 269
<i>Rhithrodontomys t. aureus</i>	201	269
<i>Rhithrodontomys tenuis</i>	199	265
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<i>Rhithronycteris aphylla</i>	521	688
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<i>Rhogeëssa tumida</i>	489
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<i>Rhynchonycteris</i>	492	608
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Saccophorus bursarius	262		
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saturatior. (Oryzomys c.)	186	239	
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<i>Sciurus acrobates</i>	124	107
<i>Sciurus adolpheï</i>	75	126
<i>Sciurus a. dorsalis</i>	76	127
<i>Sciurus adolphii</i>	75
<i>Sciurus a. dorsalis</i>	76
<i>Sciurus æstuans</i>	104
<i>Sciurus æ. chiriquensis</i>	62	104
<i>Sciurus æ. hoffmanni</i>	61	104
<i>Sciurus affinis</i>	74	124
<i>Sciurus albipes</i>	69	117
<i>Sciurus a. colimensis</i>	71, 72	129
<i>Sciurus a. effugius</i>	72	120
<i>Sciurus a. hernandezi</i>	70	118
<i>Sciurus a. nemoralis</i>	70	118
<i>Sciurus a. quercinus</i>	70	118
<i>Sciurus alfari</i>	60	99
<i>Sciurus alleni</i>	63	108
<i>Sciurus alstoni</i>	63	108
<i>Sciurus americanus</i>	95	80
<i>Sciurus apache</i>	64	110	58
<i>Sciurus arizonensis</i>	61, 63	102, 109	59
<i>Sciurus a. huachuca</i>	64	109	60
<i>Sciurus auduboni</i>	65	52
<i>Sciurus aureigaster</i>	68, 74	115, 124
<i>Sciurus a. frumentor</i>	69	117
<i>Sciurus a. hypopyrrhus</i>	68, 69	116
<i>Sciurus aureogaster</i>	69, 74	116
<i>Sciurus a. frumentor</i>	69
<i>Sciurus a. leucops</i>	71	119
<i>Sciurus aurogaster</i>	68	115
<i>Sciurus barberi</i>	67	†741
<i>Sciurus belcheri</i>	82	65
<i>Sciurus boothiæ</i>	75	126, 128
<i>Sciurus b. belti</i>	77	128
<i>Sciurus b. managuensis</i>	77	129
<i>Sciurus boquetensis</i>	60	100
<i>Sciurus browni</i>	60	100
<i>Sciurus californicus</i>	114
<i>Sciurus capistratus</i>	62, 66	107	51
<i>Sciurus carolinensis</i>	63, 75	108, 125	53, 61

†Appendix.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sciurus c. carolinensis</i>	63	.....	.....
<i>Sciurus c. extimus</i>	80	.....	55
<i>Sciurus c. fuliginosus</i>	79	.....	55
<i>Sciurus c. hypophæus</i>	79	.....	54
<i>Sciurus c. leucotis</i>	79	.....	53
<i>Sciurus c. yucatanensis</i>	75	125	.....
<i>Sciurus castanonotus</i>.....	.....	.....	57
<i>Sciurus cervicalis</i>	71	.....	.....
<i>Sciurus cinereus</i>	65, 66	.....	51, 52
<i>Sciurus colliæi</i>	73, 77	121, 129	60
<i>Sciurus c. nuchalis</i>	73	122	.....
<i>Sciurus deppei</i>	61	102	.....
<i>Sciurus d. vivax</i>	61	.....	.....
<i>Sciurus deppii</i>	60	101	.....
<i>Sciurus d. vivax</i>	61	102	.....
<i>Sciurus dorsalis</i>	66, 76	127	57
<i>Sciurus douglasii</i>	82	.....	65
<i>Sciurus d. albolimbatus</i>	83	.....	66
<i>Sciurus d. cascadiensis</i>	83	.....	66
<i>Sciurus d. mearnsi</i>	83	133	.....
<i>Sciurus d. mollipilosus</i>	83	.....	65
<i>Sciurus douglasii</i>	82	.....	.....
<i>Sciurus durangi</i>	67	112	.....
<i>Sciurus d. phæurus</i>	67	†741	.....
<i>Sciurus ferruginiventris</i>	68	115	.....
<i>Sciurus fossor</i>	78	130	55
<i>Sciurus f. anthonyi</i>	78	130	.....
<i>Sciurus f. nigripes</i>	78	.....	.....
<i>Sciurus fremonti</i>	84	.....	66
<i>Sciurus f. grahamensis</i>	85	.....	67
<i>Sciurus f. lychnuchus</i>	84	.....	.....
<i>Sciurus f. mogollonensis</i>	84	.....	67
<i>Sciurus f. neomexicanus</i>	84	.....	67
<i>Sciurus fuliginosus</i>	79	.....	.....
<i>Sciurus fuscovariegatus</i>	76	128	.....
<i>Sciurus goldmani</i>	77	130	.....
<i>Sciurus grammurus</i>	113	149	88
<i>Sciurus griseiflavus</i>	74	124	.....
<i>Sciurus g. chiapensis</i>	74	125	.....
<i>Sciurus griseocaudatus</i>	77	.....	.....
<i>Sciurus griseoflavus</i>	64	110	58
<i>Sciurus g. chiapensis</i>	74	.....	.....
<i>Sciurus griseogena</i>	60, 61	101, 104	.....
<i>Sciurus griseogenys</i>	61	104	.....
<i>Sciurus griseus</i>	78	130	55
<i>Sciurus g. anthonyi</i>	78	.....	57
<i>Sciurus g. nigripes</i>	78	.....	56
<i>Sciurus heermanni</i>	78	130	55
<i>Sciurus hiemalis</i>	79	.....	53

†Appendix.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sciurus hudsonicus baileyi</i>	81	.....	.....
<i>Sciurus h. dakotensis</i>	81	.....	.....
<i>Sciurus h. grahamensis</i>	85	.....	.....
<i>Sciurus h. gymnicus</i>	80	.....	.....
<i>Sciurus h. loquax</i>	80	.....	.....
<i>Sciurus h. minnesota</i>	81	.....	.....
<i>Sciurus h. petulans</i>	82	.....	.....
<i>Sciurus h. streatori</i>	82	.....	.....
<i>Sciurus h. ventorum</i>	81	.....	.....
<i>Sciurus hudsonius</i>	80, 124	.....	60, 107
<i>Sciurus h. baileyi</i>	81	.....	63
<i>Sciurus h. californicus</i>	83	.....	66
<i>Sciurus h. dakotensis</i>	81	.....	62
<i>Sciurus h. grahamensis</i>	85	.....	.....
<i>Sciurus h. gymnicus</i>	80	.....	61
<i>Sciurus h. loquax</i>	80	.....	62
<i>Sciurus h. mearnsi</i>	83	.....	.....
<i>Sciurus h. minnesota</i>	81	.....	62
<i>Sciurus h. petulans</i>	82	.....	†426
<i>Sciurus h. richardsoni</i>	82	.....	64
<i>Sciurus h. streatori</i>	82	.....	64
<i>Sciurus h. vancouverensis</i>	82	.....	64
<i>Sciurus h. ventorum</i>	81	.....	63
<i>Sciurus hypopyrrhus</i>	62, 68, 73	121, 126	.....
.....	75, 76, 77	127, 128	.....
<i>Sciurus hypoxanthus</i>	68	115	.....
<i>Sciurus intermedius</i>	76	127	.....
<i>Sciurus kaibabensis</i>	67	.....	.....
<i>Sciurus lateralis</i>	105	.....	83
<i>Sciurus leporinus</i>	78	130	55
<i>Sciurus leucogaster</i>	68	115	.....
<i>Sciurus leucops</i>	71, 74	119, 123	.....
<i>Sciurus leucotis</i>	79	.....	.....
<i>Sciurus ludovicianus</i>	64, 74	124	52
<i>Sciurus l. limitis</i>	65	110	53
<i>Sciurus l. neglectus</i>	65	.....	.....
<i>Sciurus l. vicinus</i>	65	.....	52
<i>Sciurus lysteri</i>	95	.....	.....
<i>Sciurus macroura</i>	64	.....	52
<i>Sciurus magnicaudatus</i>	65	.....	52
<i>Sciurus managuensis</i>	77	129	.....
<i>Sciurus melania</i>	76	128	.....
<i>Sciurus mexicanus</i>	103	146	.....
<i>Sciurus migratorius</i>	79	.....	54
<i>Sciurus mollipilosus</i>	83	.....	.....
<i>Sciurus mustelinus</i>	68	115	.....
<i>Sciurus nayaritensis</i>	63	108	.....
<i>Sciurus negligens</i>	61	102	.....
<i>Sciurus nelsoni</i>	72	120	.....

*Appendix.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sciurus n. hirtus</i>	72	121	.....
<i>Sciurus nicoyana</i>	76	127	.....
<i>Sciurus niger</i>	66, 79	115	51, 53
<i>Sciurus n. ludovicianus</i>	64	110	.....
<i>Sciurus n. melanonotus</i>	62	107	.....
<i>Sciurus occidentalis</i>	65	.....	52
<i>Sciurus oculatus</i>	62	107	.....
<i>Sciurus o. tolucae</i>	63	107	.....
<i>Sciurus orarius</i>.....	.....	.....	65
<i>Sciurus pennsylvanicus</i>	79	.....	53
<i>Sciurus poliopus</i>	69	117	.....
<i>Sciurus p. cervicalis</i>	71	119	.....
<i>Sciurus p. colimensis</i>	71, 72	119	.....
<i>Sciurus p. effugius</i>	72	120	.....
<i>Sciurus p. hernandezi</i>	70	118	.....
<i>Sciurus p. nemoralis</i>	70	118	.....
<i>Sciurus p. peregrinator</i>	70	.....	.....
<i>Sciurus p. senex</i>	71	.....	.....
<i>Sciurus pyladei</i>	77	129	.....
<i>Sciurus quadrivittatus</i>	91	138	.....
<i>Sciurus richardsoni</i>	76	128	.....
<i>Sciurus richardsonii</i>	82	.....	.....
<i>Sciurus richmondi</i>	62	105	.....
<i>Sciurus rigidus</i>	76	127	.....
<i>Sciurus rubricaudatus</i>.....	.....	.....	52
<i>Sciurus rufiventer</i>	64, 68	115	52
<i>Sciurus r. neglectus</i>	65	.....	.....
<i>Sciurus r. texensis</i>	65	110	.....
<i>Sciurus r. texianus</i>	65	.....	.....
<i>Sciurus rufiventris</i>	69	.....	.....
<i>Sciurus rufoniger</i>	61	104	.....
<i>Sciurus sabrinus</i>	124	.....	107
<i>Sciurus sayi</i>	65	.....	52
<i>Sciurus sinaloensis</i>	73	122	.....
<i>Sciurus socialis</i>	73	123	.....
<i>Sciurus s. cocos</i>	74	124	.....
<i>Sciurus striatus</i>	85, 95	134	.....
<i>Sciurus subauratus</i>	65	.....	52
<i>Sciurus suckleyi</i>	82	.....	65
<i>Sciurus tæniurus</i>	60	101	.....
<i>Sciurus tephrogaster</i>	60	101	.....
<i>Sciurus texianus</i>	65	.....	.....
<i>Sciurus thomasi</i>	75	126	.....
<i>Sciurus tridecemlineatus</i>	104	.....	.....
<i>Sciurus truei</i>	73	.....	.....
<i>Sciurus truii</i>	73	123	.....
<i>Sciurus variabilis</i>	62	105	.....
<i>Sciurus v. morulus</i>	62	105	.....
<i>Sciurus variegatoides</i>	77	129	.....
<i>Sciurus variegatus</i>	69, 113	116, 148	.....

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sciurus v. poliopus</i>	69	.....	.....
<i>Sciurus v. rufipes</i>	69	117	.....
<i>Sciurus varius</i>	69	117	.....
<i>Sciurus volans</i>	121	157	107
<i>Sciurus volucella</i>	125	158	109
<i>Sciurus vulgaris</i>	59	.....	.....
<i>Sciurus v. hudsonicus</i>	80	.....	.....
<i>Sciurus vulpinus</i>	66, 79	.....	51, 53
<i>Sciurus wagneri</i>	69	117	.....
<i>Sciurus w. cervicalis</i>	71	119	.....
<i>Sciurus w. colimensis</i>	72	120	.....
<i>Sciurus w. effugius</i>	72	120	.....
<i>Sciurus w. nemoralis</i>	70	118	.....
<i>Sciurus w. quercinus</i>	70	118	.....
<i>Sciurus xanthotus</i>	61	104	.....
<i>Sciurus yucatanensis</i>	75	125	.....
<i>Sciurus y. baliolus</i>	75	126	.....
<i>scateri</i> . (<i>Sorex</i>).....	456	552	.....
<i>scopulicola</i> . (<i>Phoca</i>).....	442	.....	363
<i>Scotophilus</i>	479	.....	408
<i>Scotophilus cubensis</i>	484	588	.....
<i>Scotophilus greenii</i>	483	587	410
<i>Scotophilus hesperus</i>	480	582	409
<i>Scotophilus miradorensis</i>	484	588	.....
<i>scotti</i> . (<i>Urocyon c.</i>).....	386	477	308
<i>scrobiculatum</i> . (<i>Phyllostoma</i>).....	513	662	.....
<i>scrutator</i> . (<i>Mephitis m.</i>).....	407	.....	324
<i>sellata</i> . (<i>Myrmecophaga</i>).....	11	28	.....
<i>sellata</i> . (<i>Tamandua</i>).....	11	28	.....
<i>Selysius</i>	473	570	400
<i>semilunaris</i> . (<i>Phoca</i>).....	444	.....	364
<i>seminola</i> . (<i>Atalapha b.</i>).....	486	.....	.....
<i>seminolus</i> . (<i>Lasiurus b.</i>).....	486	.....	413
<i>semispinosus</i> . (<i>Echimys</i>).....	329	386	.....
<i>semispinosus</i> . (<i>Proechinomys</i>).....	329	386	.....
<i>senegalensis</i> . (<i>Trichechus</i>).....	.....	35	.....
<i>senex</i> . (<i>Centurio</i>).....	529	717	.....
<i>senex</i> . (<i>Galera b.</i>).....	418	.....	.....
<i>senex</i> . (<i>Galictis b.</i>).....	418	525	.....
<i>senex</i> . (<i>Grison b.</i>).....	418	525	.....
<i>senex</i> . (<i>Sciurus p.</i>).....	71	.....	.....
<i>senex</i> . (<i>Tamias</i>).....	89	.....	72
<i>senicula</i> . (<i>Mormoops m.</i>).....	507	648	.....
<i>senicula</i> . (<i>Mormops m.</i>).....	507	648	.....
<i>Seniocebus</i>	532	724	.....
<i>sennetti</i> . (<i>Dipodops</i>).....	297	.....	239
<i>sennetti</i> . (<i>Perodipus</i>).....	297	.....	239
<i>seorsus</i> . (<i>Zygodontomys</i>).....	191	254	.....
<i>septentrionalis</i> . (<i>Vespertilio g.</i>).....	478	.....	405

*Appendix.

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
sericea. (Talpa).....	470		389
serpens. (Microtus).....	250		200
sestinensis. (Reithrodontomys m.).....	193	260	
sestinensis. (Rhithrodontomys m.).....	193, 194	260	
setosus. (Heteromys c.).....	320	380	
setosus. (Liomys c.).....	320	380	
setosus. (Sorex).....	448		369
sezekorni. (Phyllonycteris).....	521	686	
shastensis. (Sorex).....	452		374
shattucki. (Microtus p.).....	235		
shumaginensis. (Sorex a.).....	451		
shumaginensis. (Sorex g.).....	451		373
sibbaldii. (Physalus).....	20		13
Sibbaldius.....	18	42	11
Sibbaldius sulfureus.....	20	43	
Sibbaldius tectirostris.....	20		13
Sibbaldus.....	18	42	11
sieboldii. (Balæna).....	15		8
sierræ. (Lepus c.).....	363		
Sigmodon.....	174	222	143
Sigmodon alleni.....	179	224	
Sigmodon alticola.....	179	231	
Sigmodon a. amoles.....	179	231	
Sigmodon austerulus.....	180	231	
Sigmodon baileyi.....	177	226	
Sigmodon berlandieri.....	175	227	
Sigmodon borucæ.....	178	224	
Sigmodon b. chiriquensis.....	178	225	
Sigmodon colimæ.....	176	227	
Sigmodon fulviventor.....	180	232	
Sigmodon hispidus.....	174	228	144
Sigmodon h. arizonæ.....	176	228	144
Sigmodon h. baileyi.....	177	226	
Sigmodon h. berlandieri.....	175	225, 227	
Sigmodon h. borucæ.....	178	224, 232	
Sigmodon h. chiriquensis.....	178	225	
Sigmodon h. eremicus.....	176	227	145
Sigmodon h. furvus.....	178	225	
Sigmodon h. inexoratus.....	177	229	
Sigmodon h. littoralis.....	175		144
Sigmodon h. major.....	177	226, 228	
Sigmodon h. mascotensis.....	176	227	
Sigmodon h. microdon.....	178	226	
Sigmodon h. pallidus.....	175	228	145
Sigmodon h. saturatus.....	177	225	
Sigmodon h. spadicipygus.....	175		145
Sigmodon h. texensis.....	175	228	144
Sigmodon h. toltecus.....	177	226	
Sigmodon h. tonalensis.....	176	229	
Sigmodon leucotis.....	179	230, 231	

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sigmodon mascotensis</i>	176	227, 229	.....
<i>Sigmodon melanotis</i>	180	232	.....
<i>Sigmodon minimus</i>	178	230	146
<i>Sigmodon ochrognathus</i>	179	230	.....
<i>Sigmodon spadicipygus</i>	175	.....	145
<i>Sigmodontomys</i>	191	254	.....
<i>Sigmodontomys alfari</i>	191	254, 255	.....
<i>silus</i> . (<i>Sciuropterus</i>).....	121	.....	.....
<i>silus</i> . (<i>Sciuropterus s.</i>).....	125	.....	108
<i>Simia belzebul</i>	532	726	.....
<i>Simia hypoleuca</i>	536	736	.....
<i>Simia œdipus</i>	532	.....	.....
<i>Simia paniscus</i>	534	732	.....
<i>Simia sciurea</i>	534	730	.....
<i>Simia trivirgata</i>	533	728	.....
<i>similis</i> . (<i>Clymene</i>).....	30	.....	27
<i>similis</i> . (<i>Dipodomys</i>).....	289	.....	234
<i>similis</i> . (<i>Dipodomys m.</i>).....	289	.....	234
<i>similis</i> . (<i>Sorex v.</i>).....	449	.....	372
<i>simiolus</i> . (<i>Dipodomys</i>).....	289	.....	234
<i>simiolus</i> . (<i>Dipodomys m.</i>).....	289, 290	.....	234
<i>simplex</i> . (<i>Neotoma m.</i>).....	206	.....	159
<i>simplicicanus</i> . (<i>Lepus</i>).....	343	.....	.....
<i>simplicicanus</i> . (<i>Lepus f.</i>).....	343	.....	.....
<i>simulans</i> . (<i>Perodipus s.</i>).....	295	.....	.....
<i>simulatus</i> . (<i>Peromyscus</i>).....	167	205	.....
<i>simulus</i> . (<i>Peromyscus s.</i>).....	157	180	.....
<i>sinaloæ</i> . (<i>Marmosa</i>).....	3	6	.....
<i>sinaloæ</i> . (<i>Neotoma</i>).....	213	283	.....
<i>sinaloæ</i> . (<i>Odocoileus</i>).....	47	78	.....
<i>sinaloæ</i> . (<i>Odontocœlus</i>).....	47	78	.....
<i>sinaloæ</i> . (<i>Thomomys</i>).....	287	339	.....
<i>sinaloensis</i> . (<i>Sciurus</i>).....	73	122	.....
<i>Sinetheres</i>	334	399	.....
<i>Sirenia</i>	14	35	5
<i>sitkensis</i> . (<i>Microtus</i>).....	242	.....	189
<i>sitkensis</i> . (<i>Odocoileus c.</i>).....	48	.....	42
<i>sitkensis</i> . (<i>Odontocœlus c.</i>).....	48	.....	.....
<i>sitkensis</i> . (<i>Peromyscus</i>).....	152	.....	134
<i>sitkensis</i> . (<i>Ursus</i>).....	391	.....	.....
<i>Sitomys</i>	135	.....	.....
<i>Sitomys a. arizonæ</i>	140	.....	125
<i>Sitomys a. artemisæ</i>	141	.....	126
<i>Sitomys a. canadensis</i>	144	.....	128
<i>Sitomys a. thurberi</i>	146	.....	.....
<i>Sitomys auripectus</i>	153	.....	134
<i>Sitomys decolorus</i>	172	216	.....
<i>Sitomys gilberti</i>	150	195	132
<i>Sitomys herronii</i>	155	.....	137
<i>Sitomys h. nigellus</i>	155	.....	137

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sitomys insolatus</i>	154		135
<i>Sitomys keeni</i>	151		133
<i>Sitomys macroshinus</i>	152		133
<i>Sitomys major</i>	155		137
<i>Sitomys martirensis</i>	150	180	
<i>Sitomys megacephalus</i>			127
<i>Sitomys musculus</i>	135	175	
<i>Sitomys robustus</i>	156		138
<i>Sitomys rowleyi</i>	151		134
<i>Sitomys r. pinalis</i>	151	180	135
<i>Sitomys subgriseus</i>	130		141
<i>Sminthus</i>	323		
<i>socialis</i> . (<i>Cynomys</i>)	117		102
<i>socialis</i> . (<i>Sciurus</i>)	73	123	
<i>sola</i> . (<i>Neotoma d.</i>)	215		161
<i>Solenodon</i>	472	567	
<i>Solenodon cubanus</i>	472	567	
<i>Solenodon paradoxus</i>	472	568	
<i>Solenodontidæ</i>	472	566	
<i>Solitaria</i> . (<i>Neotoma f.</i>)	211		
<i>sonora</i> . (<i>Lutra c.</i>)	434	535	353
<i>sonora</i> . (<i>Lutra h.</i>)	434		
<i>sonorana</i> . (<i>Heteromys</i>)	323	379	
<i>sonorana</i> . (<i>Liomys</i>)	323	379	
<i>sonoriense</i> . (<i>Tagassu a.</i>)	36	64	
<i>sonoriensis</i> . (<i>Citellus t.</i>)	102	144	
<i>sonoriensis</i> . (<i>Conepatus</i>)	411	514	
<i>sonoriensis</i> . (<i>Dicotyles a.</i>)	36	64	
<i>sonoriensis</i> . (<i>Hesperomys</i>)	141	181	125
<i>sonoriensis</i> . (<i>Peromyscus</i>)	141		
<i>sonoriensis</i> . (<i>Peromyscus a.</i>)	141	182	125
<i>sonoriensis</i> . (<i>Peromyscus l.</i>)	141	181	
<i>sonoriensis</i> . (<i>Spermophilus</i>)	102		
<i>sonoriensis</i> . (<i>Spermophilus t.</i>)	102	144	
<i>Sorex</i>	446	548	366
<i>Sorex a. shumaginensis</i>	451		
<i>Sorex alnorum</i>	457		
<i>Sorex amoenus</i>	449		371
<i>Sorex angusticeps</i>	461		382
<i>Sorex aquaticus</i>	469		388
<i>Sorex araneus</i>	446	540	366
<i>Sorex bairdi</i>	451		373
<i>Sorex belli</i>			368
<i>Sorex bendirii albiventer</i>	459		381
<i>Sorex b. palmeri</i>	459		381
<i>Sorex brevicandus</i>	460		382
<i>Sorex californicus</i>	452		374
<i>Sorex carolinensis</i>	461		
<i>Sorex caudatus</i>	456	552	
<i>Sorex cinereus</i>	463		384

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sorex cooperi</i>	446	.....	366
<i>Sorex crawfordi</i>	459	554	385
<i>Sorex cristatus</i>	467	.....	395
<i>Sorex dekayi</i>	461	.....	382
<i>Sorex dobsoni</i>	448	.....	370
<i>Sorex evotis</i>	460	555	.....
<i>Sorex eximius</i>	457	.....	.....
<i>Sorex fimbripes</i>	446	.....	366
<i>Sorex fisheri</i>	454	.....	375
<i>Sorex forsteri</i>	446	.....	366
<i>Sorex fumeus</i>	447	.....	369
<i>Sorex glacialis</i>	451	.....	372
<i>Sorex g. alascensis</i>	451	.....	372
<i>Sorex g. shumaginensis</i>	451	.....	373
<i>Sorex godmani</i>	455	552	.....
<i>Sorex haydeni</i>	446	.....	367
<i>Sorex hoyi</i>	456, 457	.....	377
<i>Sorex hydrodromus</i>	458	.....	379
<i>Sorex idahoensis</i>	446	.....	367
<i>Sorex l. elassodon</i>	450	.....	.....
<i>Sorex l. prevostensis</i>	450	.....	.....
<i>Sorex longirostris</i>	453	.....	375
<i>Sorex macrodon</i>	455	552	.....
<i>Sorex macrurus</i>	448	.....	369
<i>Sorex merriami</i>	454	.....	376
<i>Sorex m. miscix</i>	454	.....	376
<i>Sorex montereyensis</i>	452	.....	373
<i>Sorex monticolus</i>	448	.....	371
<i>Sorex n. alaskanus</i>	458	.....	.....
<i>Sorex nevadensis</i>	449	.....	371
<i>Sorex obscurus</i>	449	.....	371
<i>Sorex o. alascensis</i>	451	.....	.....
<i>Sorex o. elassodon</i>	450	.....	.....
<i>Sorex o. longicauda</i>	450	.....	.....
<i>Sorex o. longicaudus</i>	450, 451	.....	372
<i>Sorex o. prevostensis</i>	450	.....	.....
<i>Sorex o. ventralis</i>	450	550	.....
<i>Sorex oreopolus</i>	451	550	.....
<i>Sorex orinus</i>	456	553	.....
<i>Sorex orizabæ</i>	449	550	.....
<i>Sorex ornatus</i>	452	.....	374
<i>Sorex pacificus</i>	454	.....	375
<i>Sorex palustris</i>	457, 458	.....	379
<i>Sorex parvus</i>	449, 463	.....	368, 384
<i>Sorex personatus</i>	446	.....	366
<i>Sorex p. arcticus</i>	447	.....	368
<i>Sorex p. miscix</i>	454	.....	.....
<i>Sorex p. streator</i>	446	.....	367
<i>Sorex platyrhinus</i>	447	.....	369
<i>Sorex platyrhynchus</i>	446	.....	366

	Check-List of Mammals.	Mammals of Middle America, etc.	Synopsis of Mammals, etc.
<i>Sorex pribilofensis</i>	454		376
<i>Sorex richardsoni</i>	446, 447		367, 368
<i>Sorex salvini</i>	455	551	
<i>Sorex saussurei</i>	456		
<i>Sorex s. mutabilis</i>	456		
<i>Sorex saussurii</i>	456	553	
<i>Sorex s. mutabilis</i>	456	553	
<i>Sorex sclateri</i>	456	552	
<i>Sorex setosus</i>	448		369
<i>Sorex shastensis</i>	452		374
<i>Sorex sphagnicola</i>	447		368
<i>Sorex stizodon</i>	455	551	
<i>Sorex suckleyi</i>	448		370
<i>Sorex talpoides</i>	460	555	382
<i>Sorex tenellus</i>	453		374
<i>Sorex t. lyelli</i>	453		
<i>Sorex t. myops</i>	453		
<i>Sorex t. nanus</i>	453		375
<i>Sorex thompsoni</i>	457		377
<i>Sorex trowbridgii</i>	452		373
<i>Sorex tundrensis</i>	447		368
<i>Sorex vagrans</i>	448		370
<i>Sorex v. dobsoni</i>	448		370
<i>Sorex v. monticola</i>	448		371
<i>Sorex v. similis</i>	449		372
<i>Sorex vancouverensis</i>	449		371
<i>Sorex veræpacis</i>	455	551	
<i>Soricidæ</i>	446	548	366
<i>soricina.</i> (<i>Blarina</i>)	464	560	
<i>soricina.</i> (<i>Glossophaga</i>)	516	672	
<i>Soricinæ</i>	446	548	366
<i>soricinus.</i> (<i>Vampyrus</i>)	515	669	
<i>soricinus.</i> (<i>Vespertilio</i>)	516	672	
<i>Soriciscus</i>	460	556	382
<i>sornborgeri.</i> (<i>Ursus a.</i>)	394		314
<i>sowerbianus.</i> (<i>Delphinus</i>)	31	55	28
<i>sowerbiensis.</i> (<i>Delphinus</i>)	23		18
<i>sowerbyi.</i> (<i>Delphinus</i>)	23		18
<i>spadicipygus.</i> (<i>Sigmodon</i>)	175		145
<i>spadicipygus.</i> (<i>Sigmodon h.</i>)	175		145
<i>spadix.</i> (<i>Putorius</i>)	430		348
<i>spadix.</i> (<i>Putorius l.</i>)	430		
<i>spatulatus.</i> (<i>Fiber</i>)	254		214
<i>speciosus.</i> (<i>Tamias</i>)	89		72
<i>spectabilis.</i> (<i>Dipodomys</i>)	293	345	235
<i>Spectrellum</i>	501	631	
<i>Spectrellum macrurum</i>	501	634	
<i>Spectrellum mexicanum</i>	502		
<i>Spectrellum stramineum</i>	501		
<i>Spectrellum s. major</i>	501		

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spectrum. (<i>Sturnira</i>)	529	715
spectrum. (<i>Vampyrus</i>)	511	656
spectrum. (<i>Vespertilio</i>)	511	655
speleus. (<i>Odocoileus</i>)	43	68	38
Spermatophilus	96	139	81
Spermophilopsis	96	139	.....
Spermophilus	96	139	81
Spermophilus annulatus	116	151	.....
Spermophilus a. goldmani	116	151	.....
Spermophilus armatus	112	.....	93
Spermophilus barrowensis	110	.....	91
Spermophilus beecheyi fisheri	114	.....	.....
Spermophilus beldingi	113	.....	94
Spermophilus beringensis	110	.....	91
Spermophilus bernardinus	107	.....	.....
Spermophilus buckleyi	115	.....	89
Spermophilus canescens	101	.....	97
Spermophilus castaneus	106	.....	84
Spermophilus chrysodeirus	106	.....	84
Spermophilus c. bernardinus	107	.....	84
Spermophilus c. breviceaudus	107	.....	84
Spermophilus cinerascens	106	.....	83
Spermophilus columbianus	111	.....	91
Spermophilus couchii	113	149	88
Spermophilus cryptospilotus	101	.....	97
Spermophilus elegans	113	.....	94
Spermophilus empetra	108	.....	89
Spermophilus e. kadiacensis	108	.....	90
Spermophilus e. plesius	108	.....	.....
Spermophilus franklini	105	.....	101
Spermophilus grammurus	113	149	88
Spermophilus g. atricapillus	114	150	.....
Spermophilus g. beecheyi	114	.....	88
Spermophilus g. buckleyi	115	.....	89
Spermophilus g. douglasi	115	.....	89
Spermophilus g. fisheri	114	150	88
Spermophilus gunnisoni	118	.....	.....
Spermophilus harrisii	96	141	85
Spermophilus h. saxicolus	97	142	86
Spermophilus interpres	98	143	86
Spermophilus lateralis	105	.....	83
Spermophilus l. saturatus	106	.....	83
Spermophilus leucurus	97	142	86
Spermophilus l. cinnameus	97	.....	86
Spermophilus macrourus	113	149	88
Spermophilus mexicanus	99, 103	145, 146	96, 98
Spermophilus m. parvidens	104	146	99
Spermophilus mohavensis	102	98
Spermophilus mollis	112	92
Spermophilus m. canus	112	93

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<i>Spermophilus m. stephensi</i>	112	93
<i>Spermophilus m. yakimensis</i>	112	93
<i>Spermophilus neglectus</i>	103	98
<i>Spermophilus nelsoni</i>	98	.....	87
<i>Spermophilus obsoletus</i>	99	.....	95
<i>Spermophilus oregonus</i>	113	.....	94
<i>Spermophilus osgoodi</i>	110	.....	91
<i>Spermophilus p. kadiacensis</i>	108	.....	.....
<i>Spermophilus perotensis</i>	102	145	.....
<i>Spermophilus richardsoni</i>	111	.....	92
<i>Spermophilus r. townsendi</i>	113	.....	94
<i>Spermophilus sonoriensis</i>	102	.....	.....
<i>Spermophilus spilosoma</i>	99	145	96
<i>Spermophilus s. annectens</i>	100	.....	97
<i>Spermophilus s. arens</i>	101	.....	.....
<i>Spermophilus s. macrospilotus</i>	99	145	96
<i>Spermophilus s. major</i>	99	.....	96
<i>Spermophilus s. marginatus</i>	100	.....	.....
<i>Spermophilus s. obsidianus</i>	100	.....	97
<i>Spermophilus s. pratensis</i>	100	.....	96
<i>Spermophilus tereticaudus</i>	102, 103	144	98
<i>Spermophilus t. sonoriensis</i>	102	144	.....
<i>Spermophilus townsendii</i>	111	.....	92
<i>Spermophilus tridecemlineatus</i>	104	.....	100
<i>Spermophilus t. alleni</i>	105	.....	101
<i>Spermophilus t. badius</i>	105	.....	101
<i>Spermophilus t. olivaceus</i>	104	.....	100
<i>Spermophilus t. pallidus</i>	104	.....	100
<i>Spermophilus t. parvus</i>	104	.....	100
<i>Spermophilus t. texensis</i>	105	.....	101
<i>Spermophilus wortmani</i>	107	.....	.....
<i>Sphærocephalus</i>	27	.....	.....
<i>Sphærocephalus incrassatus</i>	27	53	23
<i>sphagnicola</i> . (<i>Sorex</i>)	447	.....	368
<i>sphagnicola</i> . (<i>Synaptomys</i>)	256	.....	206
<i>spicilegus</i> . (<i>Peromyscus</i>)	156	179	.....
<i>spiculatus</i> . (<i>Phyllostoma</i>)	529	715	.....
<i>Spilogale</i>	412	519	327
<i>Spilogale ambarvalis</i>	415	.....	332
<i>Spilogale ambigua</i>	415	521	.....
<i>Spilogale angustifrons</i>	416	521	.....
<i>Spilogale a. tropicalis</i>	416	521	.....
<i>Spilogale arizonæ</i>	414	.....	331
<i>Spilogale a. martirensis</i>	414	521	.....
<i>Spilogale gracilis</i>	415	.....	330
<i>Spilogale indianola</i>	413	.....	329
<i>Spilogale interrupta</i>	412, 413	523	237
<i>Spilogale leucoparia</i>	413	329
<i>Spilogale lucasana</i>	416	523
<i>Spilogale olympica</i>	415	332

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Spilogale p. arizonæ.....	414	331
Spilogale p. latifrons.....	414	331
Spilogale putorius.....	327
Spilogale pygmæa.....	415	519	.....
Spilogale ringens.....	413	.....	329
Spilogale saxatilis.....	414	.....	330
Spilogale tenuis.....	413	.....	.....
spilosoma. (Citellus).....	99	145	.....
spilosoma. (Spermophilus).....	99	145	96
spilotus. (Perognathus p.).....	309	.....	251
spinatus. (Perognathus).....	315	363	255
spissigrada. (Mephitis).....	408	.....	326
spissigrada. (Mephitis o.).....	408	.....	.....
splendens. (Neotoma).....	206	278	.....
stearnsii. (Grampus).....	28	.....	25
stejnegeri. (Balænoptera).....	23	.....	.....
stejnegeri. (Mesoplodon).....	23	.....	*481
stejnegeri. (Phoca).....	443	.....	.....
stelleri. (Eumetopias).....	437	.....	355
stelleri. (Hydrodamalis).....	14	.....	.....
stelleri. (Lutra).....	436	537	354
stelleri. (Otaria).....	437	.....	.....
Stemmatope.....	440	.....	.....
Stemmatopus.....	440	.....	360
Stenoderma.....	526	704	.....
Stenoderma achradophilum.....	527	707	.....
Stenoderma chilense.....	529	715	.....
Stenoderma luciae.....	527	706	.....
Stenoderma microdon.....	528	.....	.....
Stenoderma montserratense.....	526	705	.....
Stenoderma nichollsi.....	526	706	.....
Stenoderma rufum.....	526	704	.....
Stenoderma tolteca.....	525	699	.....
Stenodermatinae.....	522	691	.....
stenorhyncha. (Orca).....	26	51	22
stenorhynchus. (Delphinus).....	33	58	.....
stephensi. (Citellus m.).....	112	.....	.....
stephensi. (Neotoma).....	216	.....	.....
stephensi. (Perognathus).....	312	.....	253
stephensi. (Peromyscus).....	153	190	136
stephensi. (Sciuropterus).....	124	.....	111
stephensi. (Sciuropterus a.).....	124	.....	.....
stephensi. (Sciuropterus o.).....	124	.....	.....
stephensi. (Spermophilus m.).....	112	.....	93
sticte. (Lupus).....	375
stizodon. (Sorex).....	455	551
stonei. (Citellus).....	110
stonei. (Microtus).....	236	181

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stonei. (Ovis)	54	47
stonei. (Rangifer)	39	*483
stonei. (Synaptomys)	255	203
stonii. (Citellus)	110
stonii. (Ovis)	54	85	.....
stonii. (Rangifer)	39	.....	.....
stonii. (Synaptomys c.)	255	.....	.....
stramineum. (Spectrellum)	501*	.....	.....
stramineus. (Natalis)	501	632	.....
stramineus. (Natalus)	501	632	.....
streatori. (Neotoma f.)	206	.....	159
streatori. (Perodipus)	294	.....	237
streatori. (Putorius)	427	.....	345
streatori. (Sciurus h.)	82	.....	64
streatori. (Sorex p.)	446	.....	367
striatus. (Sciurus)	85, 95	134	.....
striatus. (Tamias)	95	.....	80
Strongyloceros	41	.....	.....
strongyloceros. (Cervus)	41	.....	34
struthopus. (Lepus a.)	361	.....	274
Sturnira	529	714	.....
Sturnira lilium	529	715	.....
Sturnira spectrum	529	715	.....
styx. (Delphinus)	33	58	30
subarcticus. (Peromyscus t.)	146	.....	131
subauratus. (Sciurus)	65	.....	52
subcinctus. (Lepus f.)	344	417	.....
subflavus. (Pipistrellus)	481	.....	409
subflavus. (Vespertilio)	481	.....	400
subgriseus. (Peromyscus)	139	.....	142
subgriseus. (Sitomys)	139	.....	145
subsolana. (Felis c.)	370	.....	296
subsolanus. (Lynx)	370	.....	296
subulatus. (Myotis)	478	580	405
subulatus. (Vespertilio)	478	580	405
suckleyi. (Sciurus)	82	.....	65
suckleyi. (Sorex)	448	.....	370
Suidæ .....	.....	61	.....
sulfurea. (Balænoptera)	20	38, 43	14
sulfureus. (Sibbaldius)	20	43	.....
sulphureus. (Artibeus)	527	707	.....
sumichrasti. (Bassariscus)	398	.....	.....
sumichrasti. (Hesperomys)	172	216	.....
sumichrasti. (Nyctomys)	172	216	.....
sumichrasti. (Reithrodon)	197	264	.....
surberi. (Neotoma m.)	209	156
Sus albirostris	37	66
Sus tajacu	35	61
sylvaticus. (Lepus)	342	280

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<i>sylvestris</i> . (<i>Cervus t.</i>).....	37	35
<i>sylvestris</i> . (<i>Glyphonycteris</i>).....	513	664
<i>Sylvicola</i>	234	299	178
<i>Sylvilagus</i>	340, 341	413, 416	269
<i>Synaptomys</i>	255	.....	203
<i>Synaptomys andersoni</i>	257	.....	.....
<i>Synaptomys bullatus</i>	258	.....	.....
<i>Synaptomys chapmani</i>	257	.....	.....
<i>Synaptomys cooperi</i>	255	.....	203
<i>Synaptomys c. gossi</i>	255	.....	.....
<i>Synaptomys c. stonii</i>	255	.....	203
<i>Synaptomys dalli</i>	258	.....	206
<i>Synaptomys fatuus</i>	256	.....	204
<i>Synaptomys helaletes</i>	255	.....	204
<i>Synaptomys h. gossii</i>	255	.....	204
<i>Synaptomys innuitus</i>	256	.....	205
<i>Synaptomys i. medioximus</i>	256	.....	†430
<i>Synaptomys sphagnicola</i>	256	.....	206
<i>Synaptomys stonei</i>	255	.....	203
<i>Synaptomys truei</i>	258	.....	207
<i>Synaptomys truii</i>	257, 258	.....	.....
<i>Synaptomys wrangeli</i>	256, 257	.....	206
<i>Synotus</i>	490	603	398
<i>Synotus townsendi</i>	490	604	399
<i>Syntheosciurus</i>	59	91	.....
<i>Syntheosciurus brochus</i>	59	91	.....
<i>Synthetosciurus</i>	59	91	.....
<i>Synthetosciurus brochus</i>	59	91	.....
<i>tabascensis</i> . (<i>Didelphis m.</i>).....	6	16	.....
<i>tabascensis</i> . (<i>Didelphys m.</i>).....	6	16	.....
<i>tabernaculi</i> . (<i>Hydrodamalis</i>).....	.....	36	.....
<i>Tachynices</i>	24	.....	.....
<i>Tachynices megacephalus</i>	24	.....	.....
<i>tæniata</i> . (<i>Talpa</i>).....	468	.....	391
<i>tæniurus</i> . (<i>Sciurus</i>).....	60	101	.....
<i>Tagassu</i>	35	61	.....
<i>Tagassu angulatum</i>	35	62, 63	.....
<i>Tagassu a. crassum</i>	36	64	.....
<i>Tagassu a. humerale</i>	35	63	.....
<i>Tagassu a. sonoriense</i>	36	64	.....
<i>Tagassu a. yucatanense</i>	36	63	.....
<i>Tagassu crusnigrum</i>	36	65	.....
<i>Tagassu nanus</i>	35	62	.....
<i>Tagassu pecari</i>	37	66, 67	.....
<i>Tagassu p. ringens</i>	37	66
<i>Tagassuidæ</i>	35	61
<i>tajacu</i> . (<i>Dicotyles</i>).....	35	33
<i>tajacu</i> . (<i>Sus</i>).....	35	61

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talamancæ. (<i>Oryzomys</i>)	183	241
<i>Talpa cupreata</i>	470	388
<i>Talpa e. flava</i>	470	388
<i>Talpa e. flavescens</i>	469	388
<i>Talpa flava</i>	470	.....	388
<i>Talpa fusca</i>	470	.....	388
<i>Talpa longicaudata</i>	467	.....	.....
<i>Talpa machrina</i>	470	.....	389
<i>Talpa pennantii</i>	470	.....	388
<i>Talpa radiata</i>	467	.....	395
<i>Talpa sericea</i>	470	.....	389
<i>Talpa tæniata</i>	468	.....	391
Talpidae	466	563	386
Talpinæ	467	564	388
talpoides. (<i>Blarina</i> b.)	461	.....	.....
talpoides. (<i>Cricetus</i>)	278	.....	227
talpoides. (<i>Sorex</i>)	460	555	382
talpoides. (<i>Thomomys</i>)	278	.....	227
Talposorex	460	.....	381
<i>Tamandua</i>	10	26	.....
<i>Tamandua bivittata</i>	10	27	.....
<i>Tamandua sellata</i>	11, 12	28	.....
<i>Tamandua tetradactyla</i>	10, 11	27	.....
<i>Tamandua t. chiriquensis</i>	11	.....	.....
<i>Tamandua t. tenuirostris</i>	11	.....	.....
<i>Tamanduas</i>	10	26	.....
<i>Tamia</i>	85	.....	.....
<i>Tamias</i>	85	134	67
<i>Tamias adsitus</i>	95	.....	.....
<i>Tamias alpinus</i>	94	.....	.....
<i>Tamias amoenus</i>	90	.....	74
<i>Tamias a. borealis</i>	92	.....	.....
<i>Tamias a. bulleri</i>	88	.....	.....
<i>Tamias a. merriami</i>	88	.....	.....
<i>Tamias a. operarius</i>	†541	.....	.....
<i>Tamias a. pallidus</i>	93	.....	.....
<i>Tamias bulleri</i>	88	136, 137	.....
<i>Tamias callipeplus</i>	89	.....	73
<i>Tamias c. inyoensis</i>	89	.....	73
<i>Tamias canescens</i>	86	†741	.....
<i>Tamias canicaudus</i>	93	.....	.....
<i>Tamias caniceps</i>	93	.....	†426
<i>Tamias castanurus</i>	106	.....	85
<i>Tamias caurinus</i>	90	.....	74
<i>Tamias chrysodeirus</i>	106	.....	84
<i>Tamias cinerascens</i>	106	83
<i>Tamias cinereicollis</i>	90	75
<i>Tamias c. canipes</i>	91
<i>Tamias cooperi</i>	86	69

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<i>Tamias dorsalis</i>	85	135	68
<i>Tamias d. utahensis</i>	85		69
<i>Tamias durangæ</i>	88	137	
<i>Tamias frater</i>	90		73
<i>Tamias hindsi</i>	86		
<i>Tamias hopiensis</i>	†541		
<i>Tamias interpretes</i>	98		86
<i>Tamias l. saturatus</i>	106		83
<i>Tamias lectus</i>	94		
<i>Tamias leucurus</i>	97	142	86
<i>Tamias l. cinnamomeus</i>	97		86
<i>Tamias l. peninsulae</i>	97	143	
<i>Tamias macrorhabdotes</i>	88		71
<i>Tamias m. melanurus</i>	94		79
<i>Tamias merriami</i>	88	136, 137	71
<i>Tamias minimus</i>	93		78
<i>Tamias m. alpinus</i>	94		79
<i>Tamias m. consobrinus</i>	93		78
<i>Tamias m. pictus</i>	94		79
<i>Tamias obscurus</i>	88	136	
<i>Tamias oreocetes</i>	95		80
<i>Tamias palmeri</i>	86		69
<i>Tamias panamintinus</i>	90		74
<i>Tamias pricei</i>	86		
<i>Tamias quadrimaculatus</i>	88		†71
<i>Tamias quadrivittatus</i>	91	138	75
<i>Tamias q. affinis</i>	92		77
<i>Tamias q. borealis</i>	92		77
<i>Tamias q. felix</i>	92		76
<i>Tamias q. gracilis</i>	91		76
<i>Tamias q. luteiventris</i>	92		76
<i>Tamias q. neglectus</i>	92		78
<i>Tamias q. pallidus</i>	85	135	68
<i>Tamias senex</i>	89		72
<i>Tamias speciosus</i>	89		72
<i>Tamias s. inyoensis</i>	89		73
<i>Tamias striatus</i>	95		80
<i>Tamias s. griseus</i>	96		81
<i>Tamias s. lysteri</i>	95		80
<i>Tamias s. venustus</i>	96		81
<i>Tamias townsendi</i>	86		69
<i>Tamias t. hindsi</i>	86		70
<i>Tamias t. hindsii</i>	86		
<i>Tamias t. littoralis</i>	87		
<i>Tamias t. ochrogenys</i>	87		71
<i>Tamias t. pricei</i>	87		70
<i>Tamias t. pricii</i>	86		
<i>Tamias townsendii</i>	86		
<i>Tamias umbrinus</i>	91		75

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